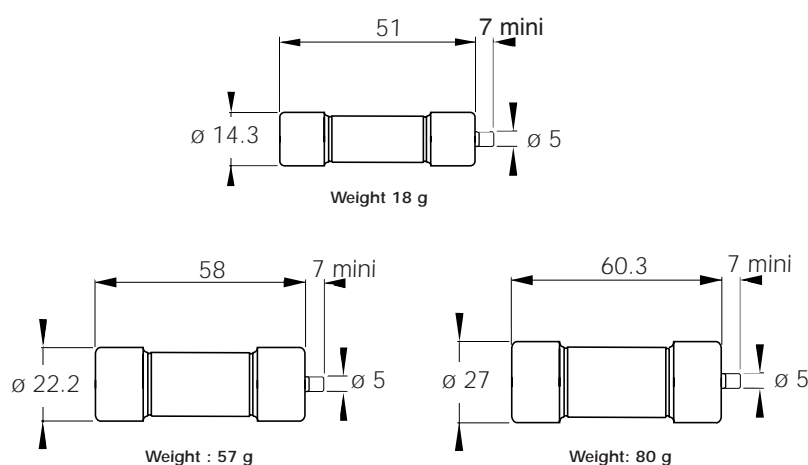




DC Ferrule Fuses 14x51, 22x58, 27x60 gLB 440V DC

gLB from 2 to 160 A

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7mm

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss $0.8 I_N$ (W)	I_N (W)	Designation	Reference Number	Catalog Number
14x51	2	@ 440 V DC 100 kA L/R = 30 ms	0.29	0.5	CC 4.421 CP gLB 14x51/2	E075720	FD14GB44V2T
	6		0.74	1.3	CC 4.421 CP gLB 14x51/6	Q094084	FD14GB44V6T
	8		1.1	1.8	CC 4.421 CP gLB 14x51/8	F075721	FD14GB44V8T
	10		1.1	1.9	CC 4.421 CP gLB 14x51/10	G075722	FD14GB44V10T
	12		1.2	2.0	CC 4.421 CP gLB 14x51/12	R094085	FD14GB44V12T
	16		1.2	2.1	CC 4.421 CP gLB 14x51/16	H075723	FD14GB44V16T
	20		1.4	2.5	CC 4.421 CP gLB 14x51/20	L221132	FD14GB44V20T
	25		1.6	2.8	CC 4.421 CP gLB 14x51/25	J075724	FD14GB44V25T
	32		2.4	4.2	CC 4.421 CP gLB 14x51/32	S098410	FD14GB44V32T
	40		2.9	5.0	CC 4.421 CP gLB 14x51/40	T098687	FD14GB44V40T
	50		3.3	5.7	CC 4.421 CP gLB 14x51/50	H076620	FD14GB44V50T
22x58	50	@ 440 V DC 100 kA L/R = 30 ms	3.9	6.7	CC 4.421 CP gLB 22x58/50	L076968	FD22GB44V50T
	63		4.9	8.5	CC 4.421 CP gLB 22x58/63	M221133	FD22GB44V63T
	80		6.2	10.8	CC 4.421 CP gLB 22x58/80	J098563	FD22GB44V80T
	100		7.5	13.2	CC 4.421 CP gLB 22x58/100	K099507	FD22GB44V100T
	125		12.6	22	CC 4.421 CP gLB 27x60/125	H098562	FD27GB44V125T
27x60	160	@ 440 V DC 100 kA L/R = 30 ms	13.8	24.2	CC 4.421 CP gLB 27x60/160	M075704	FD27GB44V160T

Minimum trip indicator operating voltage: 20 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 10 pieces



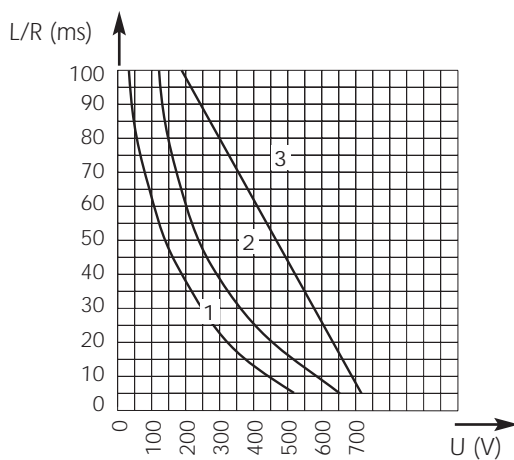
DC Ferrule Fuses 14x51, 22x58, 27x60 gLB 440V DC



gLB from 2 to 160 A

Electrical characteristics

DC applications data

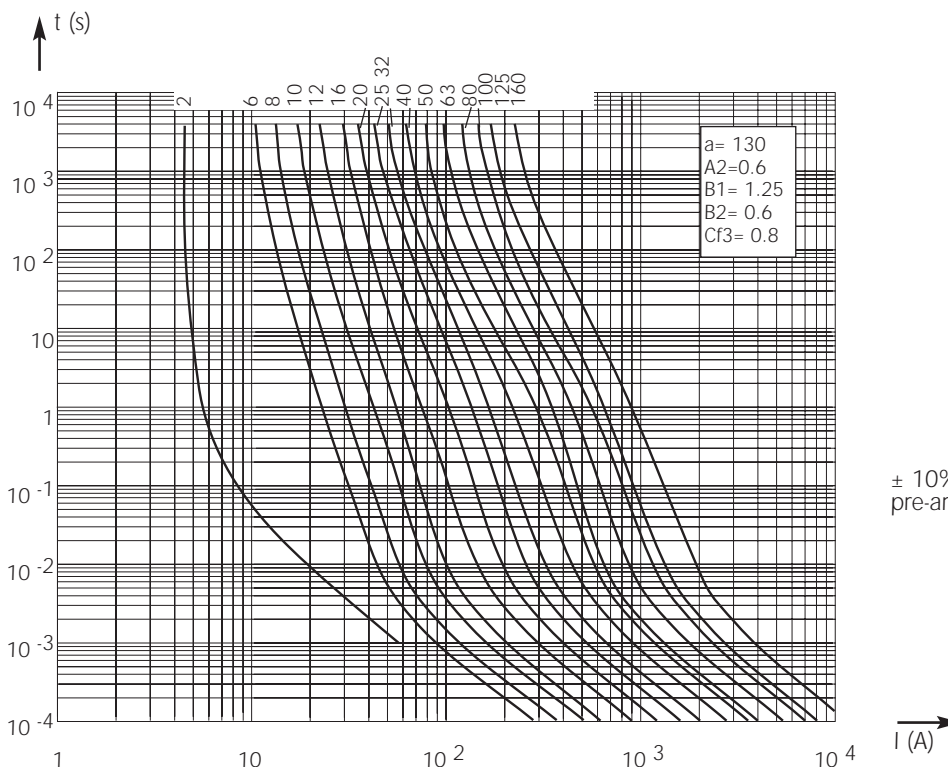


Left: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

- 1- Size 14x51
- 2- Size 22x58
- 3- Size 27x60

Max. AC voltage (50/60 Hz): 500 V with breaking capacity of 100 kA

Time vs. current characteristics



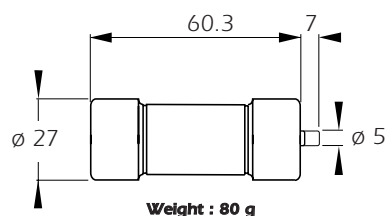
± 10% tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

DC Ferrule Fuses 27x60 gRB 660V DC

gRB from 0.8 to 110 A

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7 mm



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
27x60	0.8	@ 660 V DC 50 kA L/R = 15 ms	0.25	0.4	CC 6.621 CP gRB 27x60/0.8	H098585	FD27GRB66V0,8T
	1		0.25	0.4	CC 6.621 CP gRB 27x60/1	J098586	FD27GRB66V1T
	1.5		0.35	0.6	CC 6.621 CP gRB 27x60/1.5	K098587	FD27GRB66V1,5T
	2		0.4	0.7	CC 6.621 CP gRB 27x60/2	P098591	FD27GRB66V2T
	3.15		0.6	1	CC 6.621 CP gRB 27x60/3.15	Q098592	FD27GRB66V3,15T
	4		0.6	1	CC 6.621 CP gRB 27x60/4	R098593	FD27GRB66V4T
	5		0.7	1.1	CC 6.621 CP gRB 27x60/5	T098595	FD27GRB66V5T
	6.3		0.8	1.3	CC 6.621 CP gRB 27x60/6.3	Z098600	FD27GRB66V6,3T
	8		1.2	2	CC 6.621 CP gRB 27x60/8	L076301	FD27GRB66V8T
	10		1.3	2.3	CC 6.621 CP gRB 27x60/10	M076302	FD27GRB66V10T
	12		1.4	2.4	CC 6.621 CP gRB 27x60/12	L075703	FD27GRB66V12T
	16		1.9	3.3	CC 6.621 CP gRB 27x60/16	N076303	FD27GRB66V16T
	20		2.4	4.1	CC 6.621 CP gRB 27x60/20	C077006	FD27GRB66V20T
	25		2.8	4.7	CC 6.621 CP gRB 27x60/25	M075635	FD27GRB66V25T
	32		3.5	6	CC 6.621 CP gRB 27x60/32	P076304	FD27GRB66V32T
	40		4.7	8	CC 6.621 CP gRB 27x60/40	Q076305	FD27GRB66V40T
	50		4.8	8.3	CC 6.621 CP gRB 27x60/50	R076306	FD27GRB66V50T
	63		5.6	9.6	CC 6.621 CP gRB 27x60/63	P079961	FD27GRB66V63T
	80		6.4	11.2	CC 6.621 CP gRB 27x60/80	S079964	FD27GRB66V80T
	100		7.4	12.9	CC 6.621 CP gRB 27x60/100	T099400	FD27GRB66V100T
	110		7.7	13.7	CC 6.621 CP gRB 27x60/110	S076307	FD27GRB66V110T

Minimum trip indicator operating voltage: 20 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 3 and 10 pieces

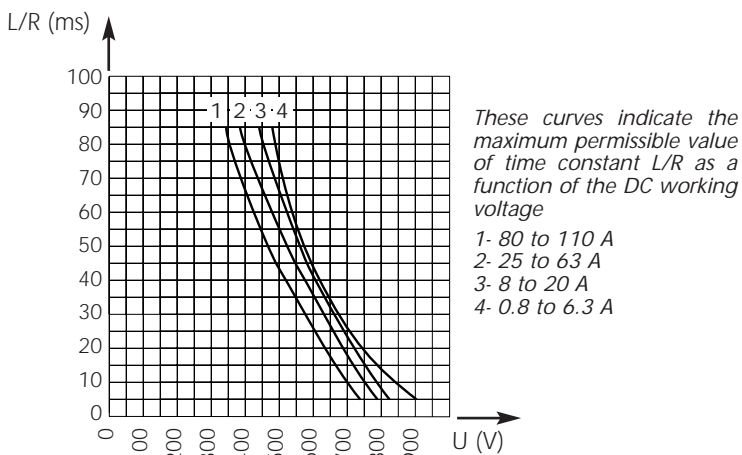


DC Ferrule Fuses 27x60 gRB 660V DC



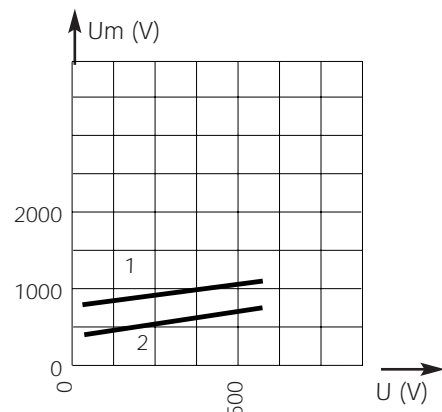
gRB from 0.8 to 110 A

Electrical characteristics DC applications data



Max. AC voltage (50/60 Hz):
660 V with 50 kA breaking capacity for $I_N \leq 6.3$ A
660 V with 200 kA breaking capacity for $I_N > 6.3$ A

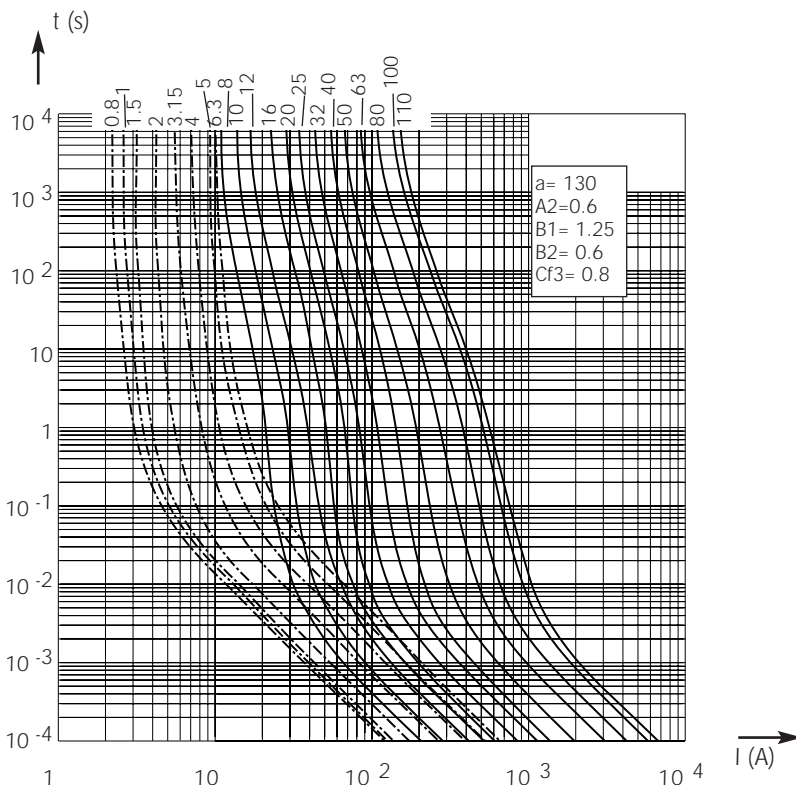
Peak arc voltage vs. working voltage



1- $L/R = 60$ ms
2- $L/R = 30$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



$\pm 10\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

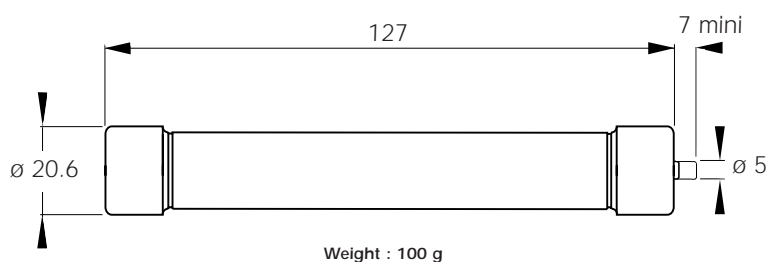


DC Ferrule Fuses 20x127 gR 1000V DC



gRB-gRC from 6 to 63A

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7 mm



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
20x127	6	@ 1000 V DC 100 kA L/R = 20 ms	2.0	3.5	CC 1051 CP gRB 20x127/6 D 100 gRB 006 VI	Z088020	FD20GB100V6T
	8		2.2	3.8	CC 1051 CP gRB 20x127/8 D 100 gRB 008 VI	T088774	FD20GB100V8T
	10		2.4	4.2	CC 1051 CP gRB 20x127/10 D 100 gRB 010 VI	A089493	FD20GB100V10T
	12		3.0	5.3	CC 1051 CP gRB 20x127/12 D 100 gRB 012 VI	B089494	FD20GB100V12T
	16		3.7	6.6	CC 1051 CP gRB 20x127/16 D 100 gRB 016 VI	C089495	FD20GB100V16T
	20		4.4	7.7	CC 1051 CP gRB 20x127/20 D 100 gRB 020 VI	D089496	FD20GB100V20T
	25		5.1	9	CC 1051 CP gRB 20x127/25 D 100 gRB 025 VI	E089497	FD20GB100V25T
	32		6.0	10.5	CC 1051 CP gRB 20x127/32 D 100 gRB 032 VI	F089498	FD20GB100V32T
	40		7.3	13.2	CC 1051 CP gRC 20x127/40 D 100 gRC 040 VI	S086795	FD20GC100V40T
	50		8.5	15.5	CC 1051 CP gRC 20x127/50 D 100 gRC 050 VI	F086186	FD20GC100V50T
	63*		9.6	17.4	CC 1051 CP gRC 20x127/63* D 100 gRC 063 VI*	F083656*	FD20GC100V63T

Minimum trip indicator operating voltage: 50 V

* Use R.M.S. current less than 56 A when mounting in Fuse-disconnector
See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 3 and 10 pieces



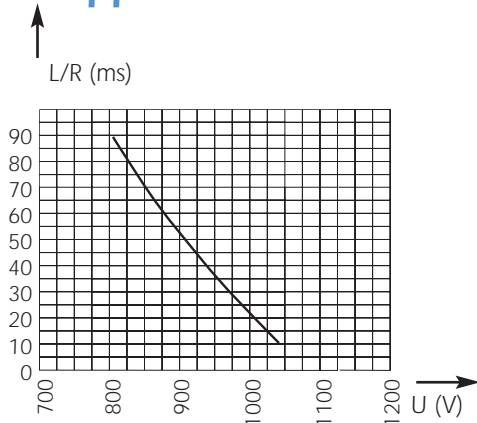
DC Ferrule Fuses 20x127 gR 1000V DC



gRB-gRC from 6 to 63A

Electrical characteristics

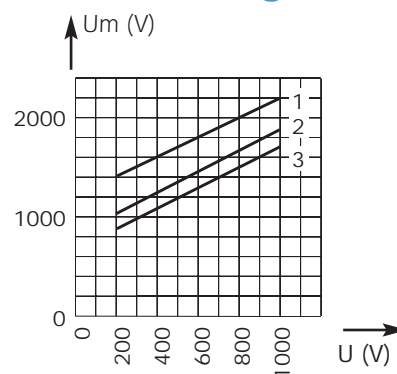
DC applications data



Above: Curve indicates the maximum permissible value of time constant L/R as a function of the DC working voltage

Max. AC voltage (50/60 Hz): 1500 V with breaking capacity of 100 kA

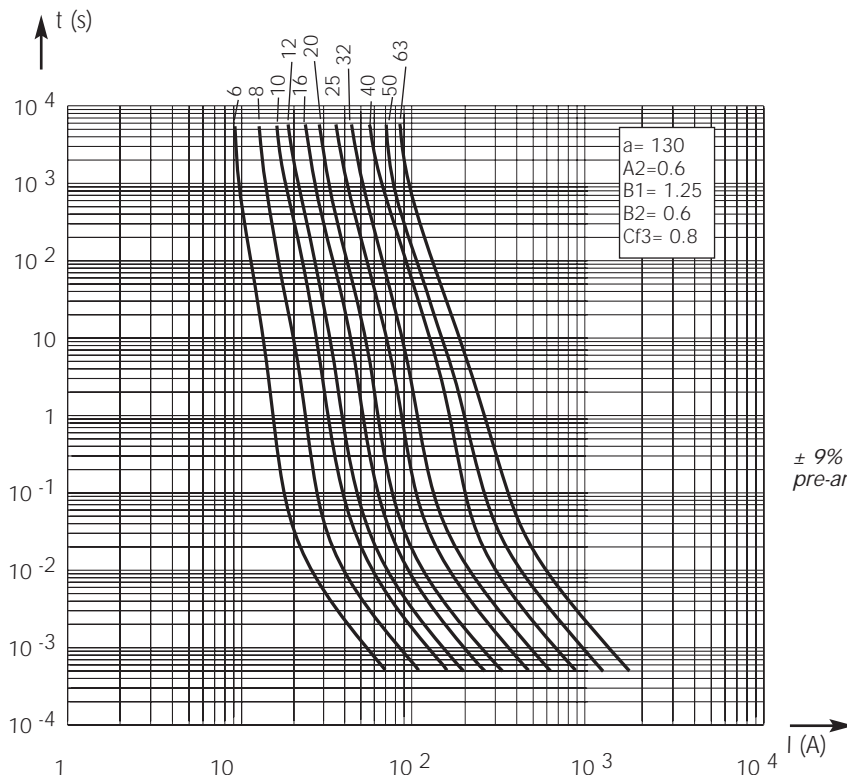
Peak arc voltage vs. working voltage



- 1- $L/R = 50$ ms
- 2- $L/R = 25$ ms
- 3- $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage, which may appear across the fuse terminals, vs. DC working voltage

Time vs. current characteristics



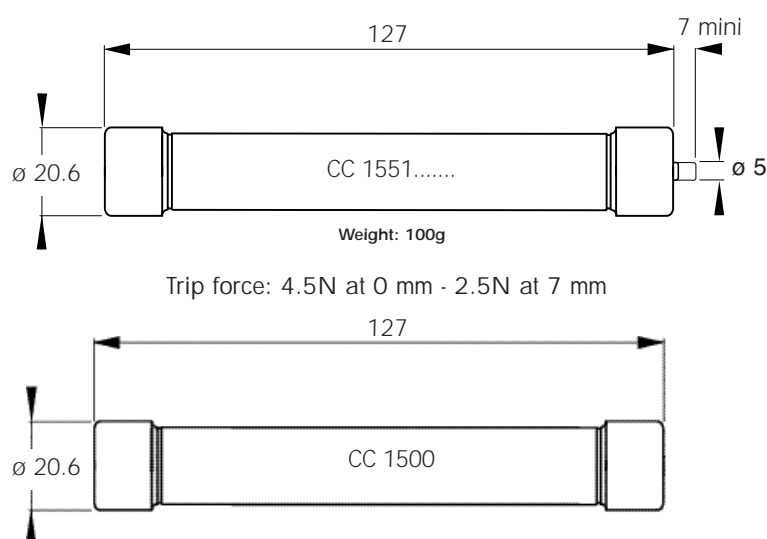
$\pm 9\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

DC Ferrule Fuses 20x127 gR 1500V DC

gRB - gRD from 0.8 to 25 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
20x127	0.8	@ 1000 V DC 100 kA L/R = 100 ms	0.5	0.9	CC 1551 CP gRB 20x127/0.8 D 150 gRB 0.8 VI ⁽¹⁾	E075743	FD20GB150V0,8T
	1		0.5	0.9	CC 1551 CP gRB 20x127/1 D 150 gRB 001 VI ⁽¹⁾	F075744	FD20GB150V1T
	1.5		0.8	1.4	CC 1551 CP gRB 20x127/1.5 D 150 gRB 01.5 VI ⁽¹⁾	G075745	FD20GB150V1,5T
	2		0.9	1.6	CC 1551 CP gRB 20x127/2 D 150 gRB 002 VI ⁽¹⁾	B088367	FD20GB150V2T
	3.15		1.2	2.1	CC 1551 CP gRB 20x127/3.15 D 150 gRB 3.15VI ⁽¹⁾	H075746	FD20GB150V3,15T
	4	@ 1500 V DC 30 kA L/R = 20 ms	1.3	2.1	CC 1551 CP gRB 20x127/4 D 150 gRB 004 VI ⁽¹⁾	J075747	FD20GB150V4T
	5		1.4	2.3	CC 1551 CP gRB 20x127/5 D 150 gRB 005 VI ⁽¹⁾	C088368	FD20GB150V5T
	0.8		0.5	0.9	CC 1500 CP gRB 20x127/0.8 D 150 gRB 0.8 V	J081842	FD20GB150V0,8
	1		0.5	0.9	CC 1500 CP gRB 20x127/1 D 150 gRB 001 V	R079894	FD20GB150V1
	1.5		0.8	1.4	CC 1500CP gRB 20x127/1.5 D 150 gRB 01.5 V	K081843	FD20GB150V1,5
	2		0.9	1.6	CC 1500 CP gRB 20x127/2 D 150 gRB 002 V	Y099243	FD20GB150V2
	3.15		1.2	2.1	CC 1500 CP gRB 20x127/3.15 D 150 gRB 3.15 V	L081844	FD20GB150V3,15
	4		1.3	2.1	CC 1500CP gRB 20x127/4 D 150 gRB 004 V	Z099244	FD20GB150V4
	5		1.4	2.3	CC 1500 CP gRB 20x127/5 D 150 gRB 005 V	A099245	FD20GB150V5
	6	@ 1500 V DC 30 kA L/R = 55 ms	3.4	6.3	CC 1500 CP gRD 20x127/6 D 150 gRD 006 V	E082804	FD20GD150V6
	8		3.3	6.0	CC 1500 CP gRD 20x127/8 D 150 gRD 008 V	Z080867	FD20GD150V8
	10		3.5	6.1	CC 1500 CP gRD 20x127/10 D 150 gRD 010 V	F081655	FD20GD150V10
	12		3.9	6.8	CC 1500 CP gRD 20x127/12 D 150 gRD 012 V	B080593	FD20GD150V12
	16		5	8.9	CC 1500 CP gRD 20x127/16 D 150 gRD 016 V	Q081457	FD20GD150V16
	20		5.3	9.6	CC 1500 CP gRD 20x127/20 D 150 gRD 020 V	D082803	FD20GD150V20
	25		6.6	12	CC 1500 CP gRD 20x127/25 D 150 gRD 025 V	A080431	FD20GD150V25

Minimum trip indicator operating voltage: 50 V

(1) Rating 0,8 to 5A with trip indicator arc. UL Recognized

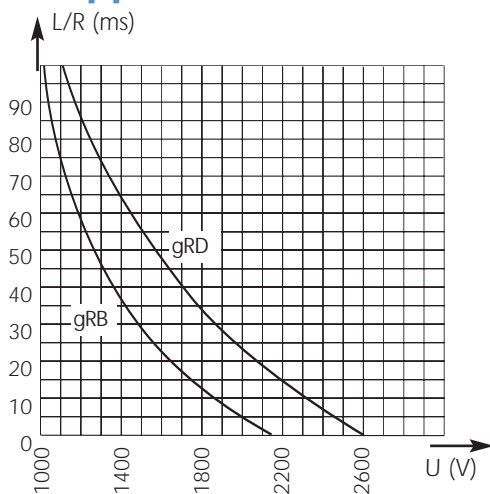
See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 3 and 10 pieces

DC Ferrule Fuses 20x127 gR 1500V DC

gRB - gRD from 0.8 to 25 A

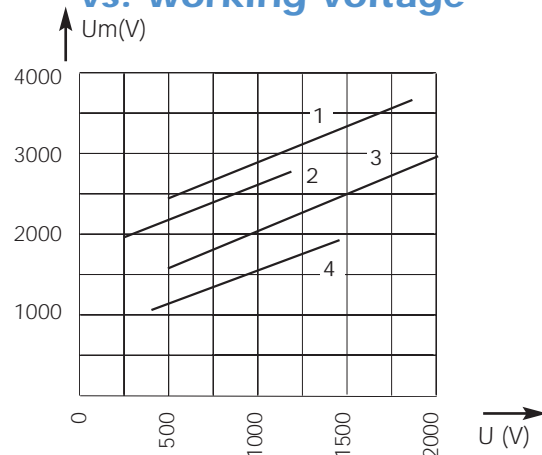
Electrical characteristics DC applications data



Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
2500 V with breaking capacity of 50 kA

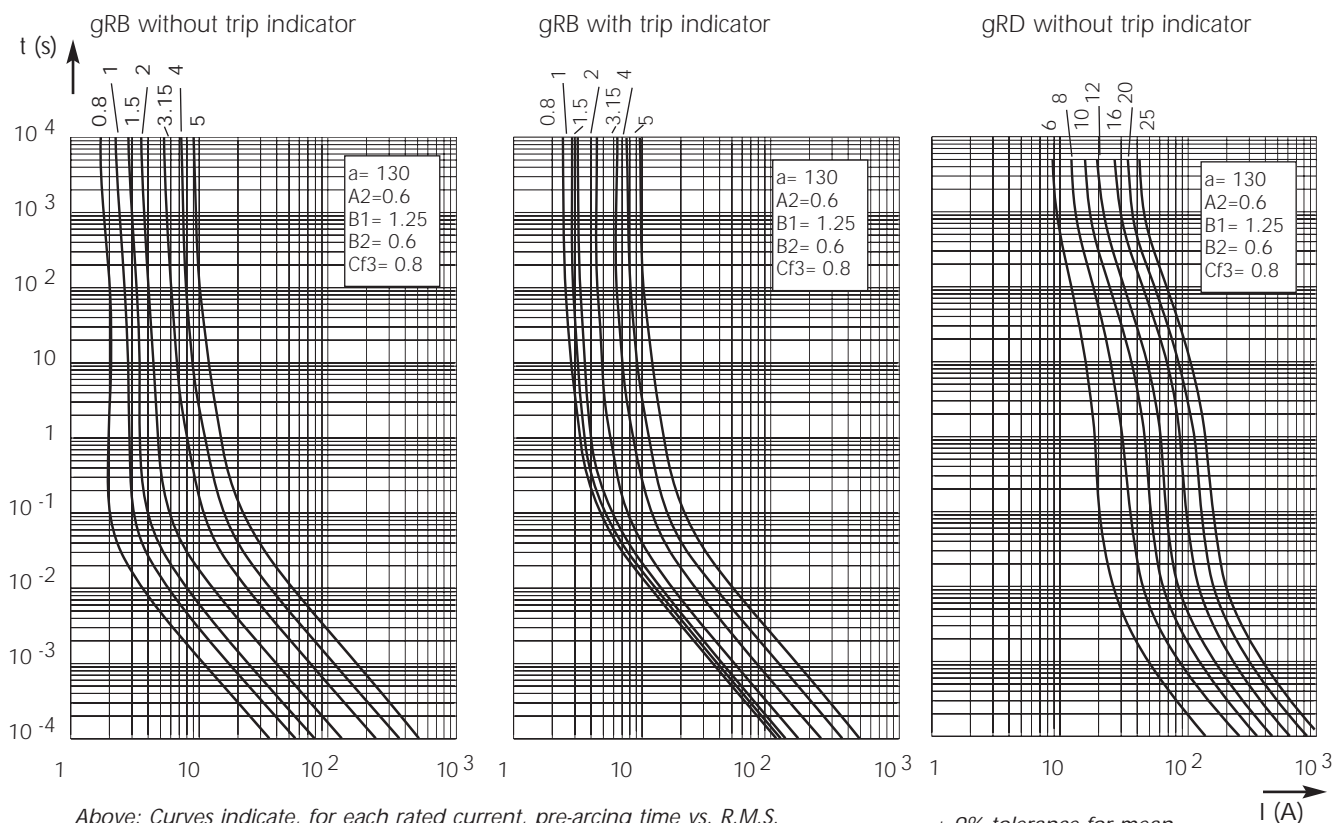
Peak arc voltage vs. working voltage



Curve 1: gRD @ $L/R = 30$ ms
Curve 2: gRB @ $L/R = 60$ ms
Curve 3: gRD @ $L/R = 15$ ms
Curve 4: gRB @ $L/R = 30$ ms

Above: Curves indicate for various time constants L/R peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

$\pm 9\%$ tolerance for mean pre-arcing current



DC Ferrule Fuses

36x127

gR 1000V DC

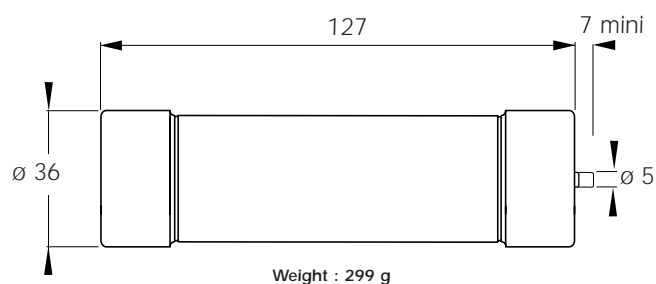


1000 V DC

gRB-gRC from 25 to 100 A

Size 36x127

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7 mm



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
36x127	25	1000 V	5.3	9.4	CC 1051 CP gRB 36x127/25	H 083980	FD36GB100V25T
	32	100 kA	6.4	11.5	CC 1051 CP gRB 36x127/32	R 086495	FD36GB100V32T
	40	20 ms	6.5	11.6	CC 1051 CP gRB 36x127/40	G 089499	FD36GB100V40T
	50		8.7	15.4	CC 1051 CP gRB 36x127/50	H 089500	FD36GB100V50T
	63	1000 V	10.5	18.8	CC 1051 CP gRC 36x127/63	J 089501	FD36GC100V63T
	80	100 kA	11.9	21.5	CC 1051 CP gRC 36x127/80	A 083651	FD36GC100V80T
	100	20 ms	13.2	24.1	CC 1051 CP gRC 36x127/100	Z 083650	FD36GC100V100T

Minimum trip indicator operating voltage: 50 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 3 pieces



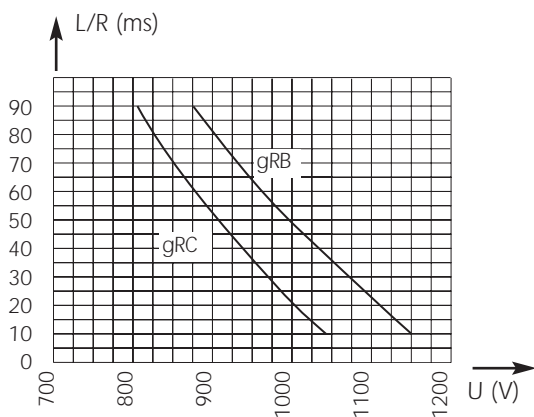
DC Ferrule Fuses 36x127 gR 1000V DC



gRB-gRC from 25 to 100 A

Electrical characteristics

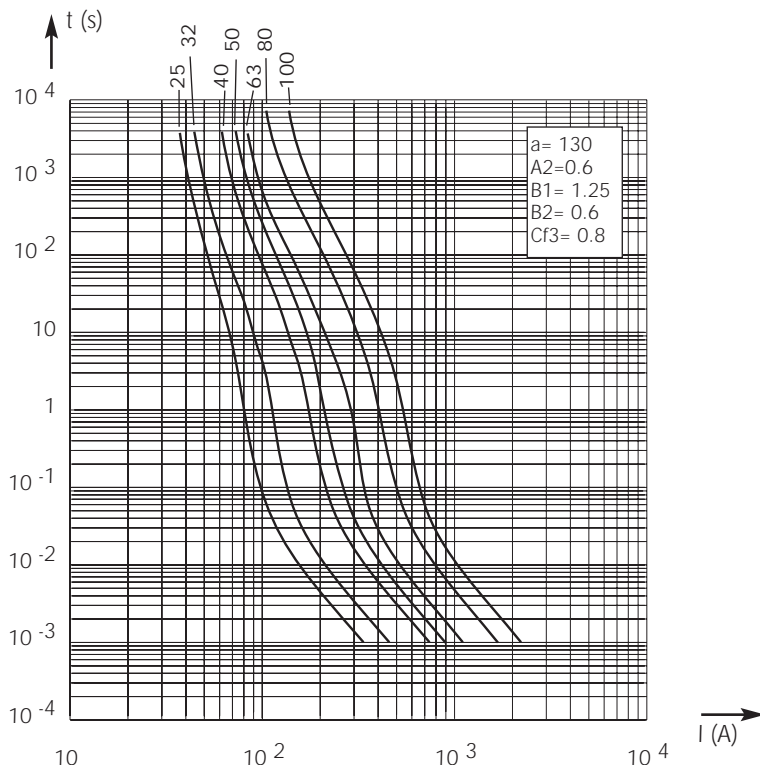
DC applications data



Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

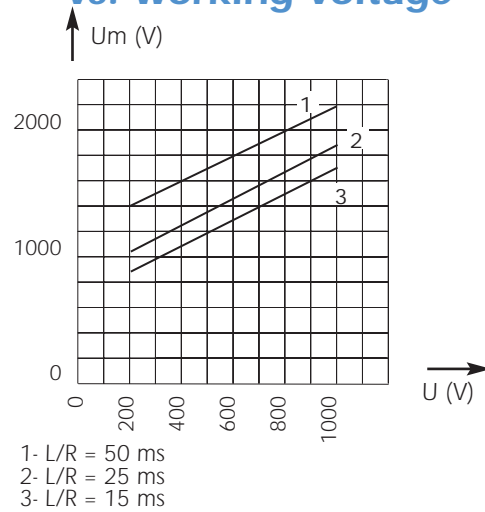
Max. AC voltage (50/60 Hz):
1500 V with breaking capacity of 100 kA

Time vs. current characteristics



Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

$\pm 7\%$ tolerance for mean pre-arcing current

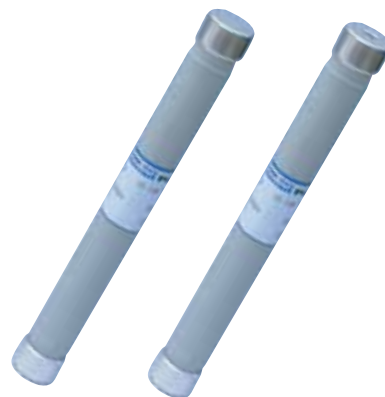
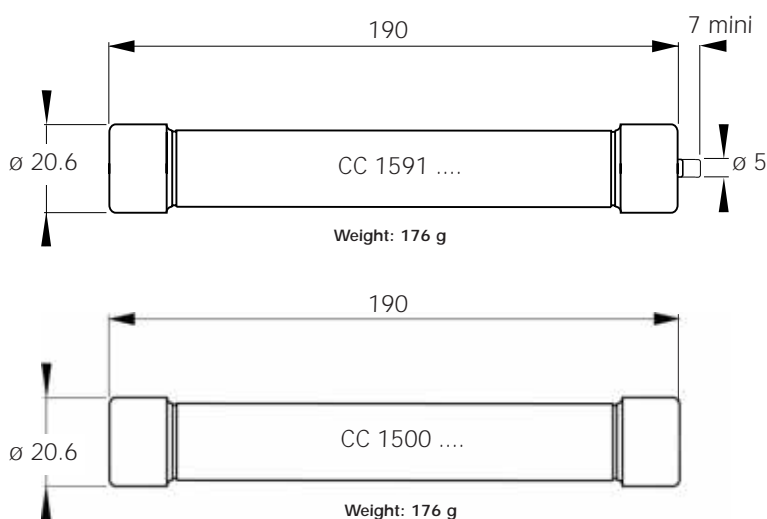


DC Ferrule Fuses 20x190 gR 1500V DC



gRC from 6 to 32 A

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7 mm

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
20x190	6	@ 1500 V DC 60 kA L/R = 40 ms	4.8	7.8	CC 1591 CP gRC 20x190/6	D083102	FD20GC150V6T
	8		5.3	8.8	CC 1591 CP gRC 20x190/8	V083738	FD20GC150V8T
	10		6.5	10.5	CC 1591 CP gRC 20x190/10	G087245	FD20GC150V10T
	12		7.0	11.5	CC 1591 CP gRC 20x190/12	Y080429	FD20GC150V12T
	16		8.0	13	CC 1591 CP gRC 20x190/16	N088378	FD20GC150V16T
	20		9.5	15	CC 1591 CP gRC 20x190/20	Q087345	FD20GC150V20T
	25		12	19.5	CC 1591 CP gRC 20x190/25	Z080430	FD20GC150V25T
	32		16	26	CC 1591 CP gRC 20x190/32	G085911	FD20GC150V32T
	6		4.8	7.8	CC 1500 CP gRC 20x190/6	Z089469	FD20GC150V6
	8		5.3	8.8	CC 1500 CP gRC 20x190/8	A089470	FD20GC150V8
	10		6.5	10.5	CC 1500 CP gRC 20x190/10	B089471	FD20GC150V10
	12		7.0	11.5	CC 1500 CP gRC 20x190/12	C089472	FD20GC150V12
	16		8.0	13	CC 1500 CP gRC 20x190/16	D089473	FD20GC150V16
	20		9.5	15	CC 1500 CP gRC 20x190/20	E089474	FD20GC150V20
	25		12	19.5	CC 1500 CP gRC 20x190/25	F089475	FD20GC150V25
	32		16	26	CC 1500 CP gRC 20x190/32	G089476	FD20GC150V32

Minimum trip indicator operating voltage: 90 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 1 piece



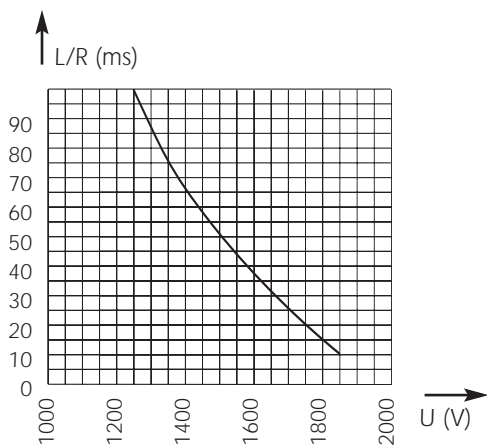
DC Ferrule Fuses 20x190 gR 1500V DC



gRC from 6 to 32 A

Electrical characteristics

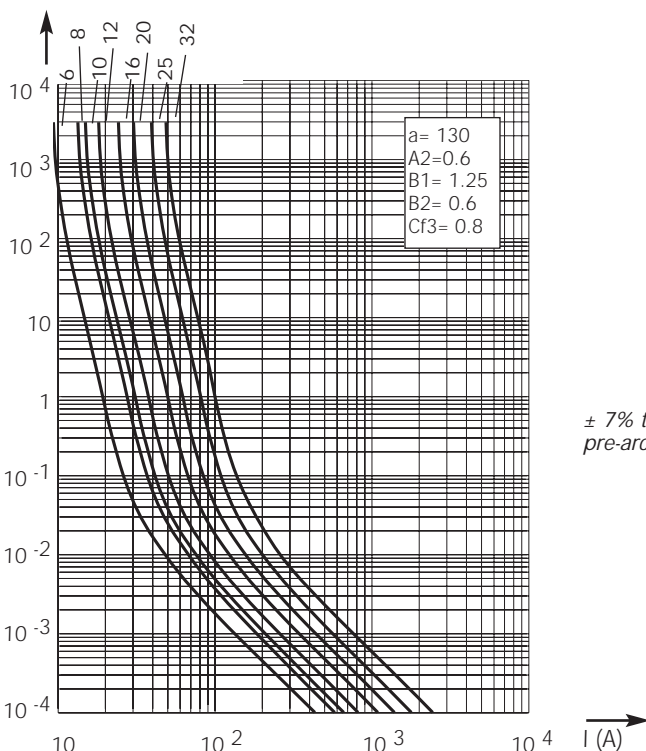
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
3000 V with breaking capacity of 50 kA

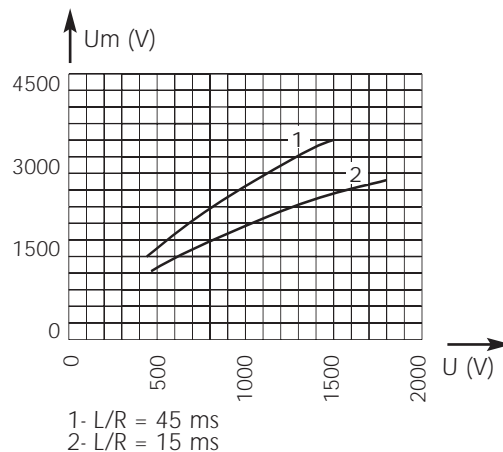
Time vs. current characteristics



$\pm 7\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R peak arc voltage which may appear across fuse terminals, vs. DC working voltage

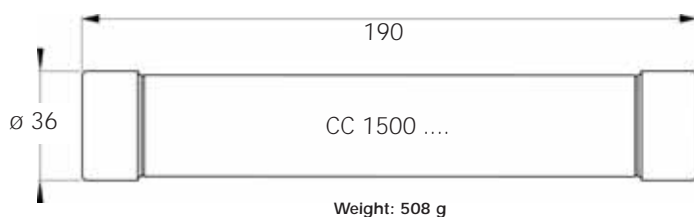
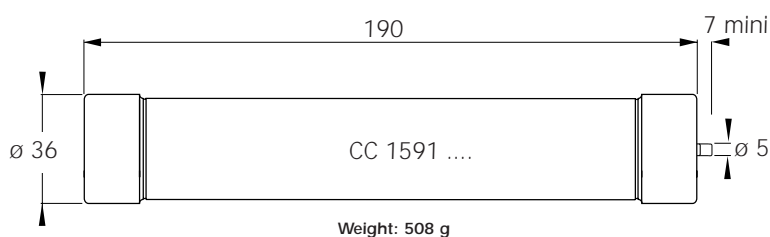


DC Ferrule Fuses 36x190 gR 1500V DC



gRC - gRD from 40 to 100 A

Dimensions



Trip force: 4.5N at 0 mm - 2.5N at 7 mm



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
36x190	40	@ 1500 V DC 60 kA L/R = 60 ms	14	26	CC 1591 CP gRC 36x190/40	M 080419	FD36GC150V40T
	50		16.5	30	CC 1591 CP gRC 36x190/50	N 080420	FD36GC150V50T
	63		20.6	38	CC 1591 CP gRC 36x190/63	P 080421	FD36GC150V63T
	80		18	33	CC 1591 CP gRD 36x190/80	N 221134	FD36GD150V80T
	100		23	42	CC 1591 CP gRD 36x190/100	Y 220154	FD36GD150V100T
	40	@ 1500 V DC 100 kA L/R = 30 ms	14	26	CC 1500 CP gRC 36x190/40	H 089477	FD36GC150V40
	50		16.5	30	CC 1500 CP gRC 36x190/50	J 089478	FD36GC150V50
	63		20.6	38	CC 1500 CP gRC 36x190/63	K 089479	FD36GC150V63
	80		18	33	CC 1500 CP gRD 36x190/80	Q 078007	FD36GD150V80
	100		23	42	CC 1500 CP gRD 36x190/100	K 078025	FD36GD150V100

Minimum trip indicator operating voltage: 90 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 1 piece



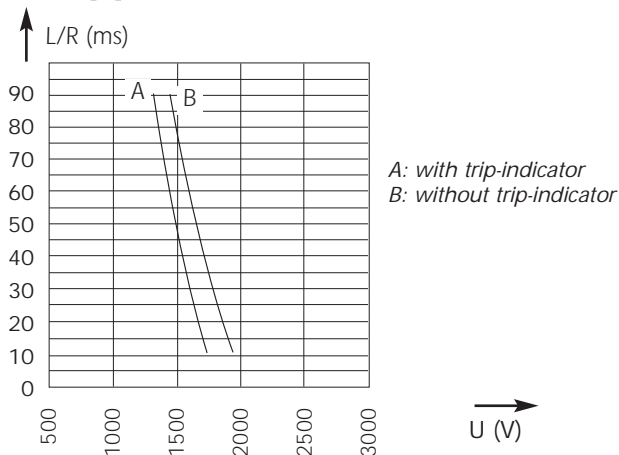
DC Ferrule Fuses 36x190 gR 1500V DC



gRC - gRD from 40 to 100 A

Electrical characteristics

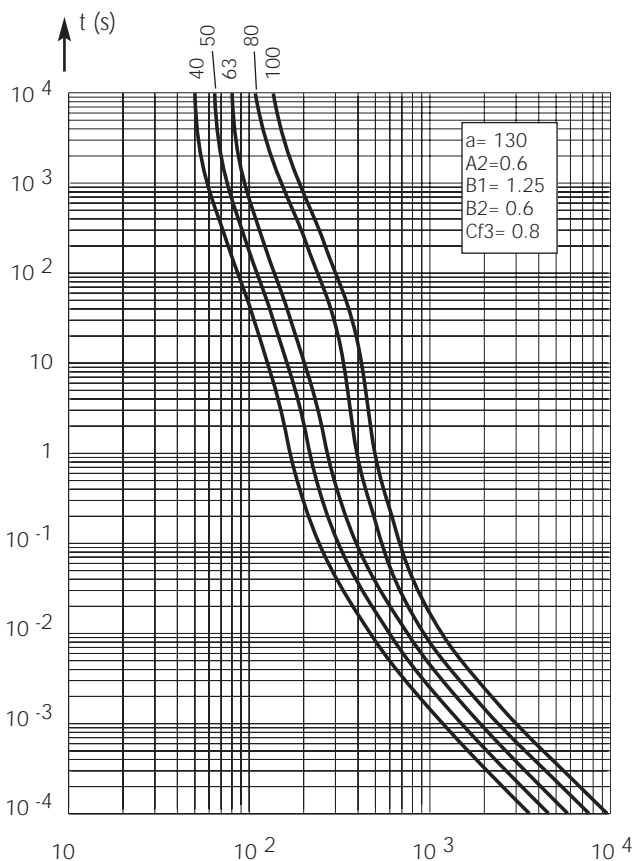
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
3000 V with breaking capacity of 50 kA

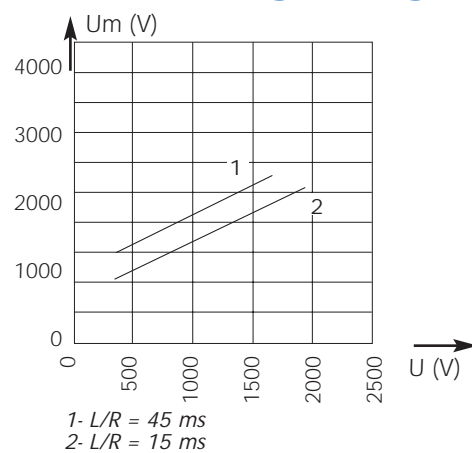
Time vs. current characteristics



$\pm 9\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

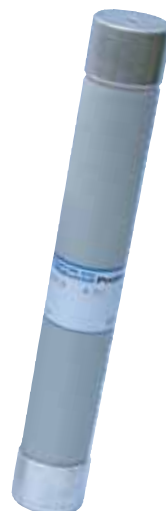
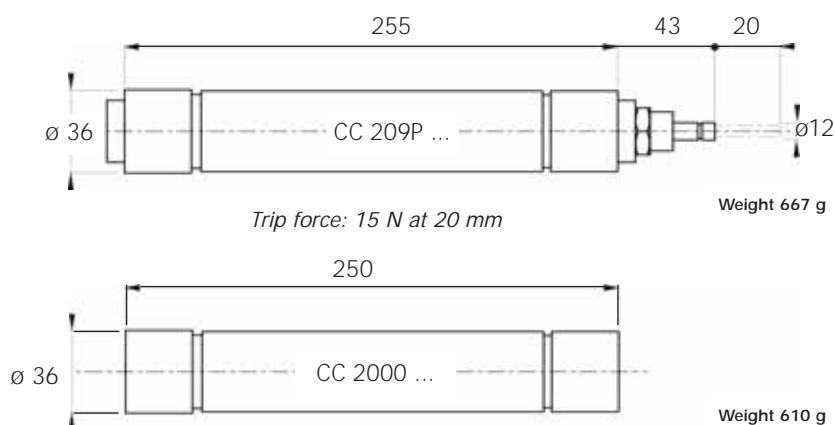


DC Ferrule Fuses 36x250 gR 2000V DC



gRB from 0.8 to 40 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss 0.8 I_N (W)	I_N (W)	Designation	Reference Number	Catalog Number
36x250	0.8	@ 2000 V DC 30 kA L/R = 20 ms	1	1.8	CC 2000 CP gRB 36x250/0.8	P 221135	FD36GB200V0,8
	1		1.1	2	CC 2000 CP gRB 36x250/1	R 093096	FD36GB200V1
	1.5		1.8	3	CC 2000 CP gRB 36x250/1.5	S 093097	FD36GB200V1,5
	2		2	3.3	CC 2000 CP gRB 36x250/2	T 093098	FD36GB200V2
	3.15		2.8	5	CC 2000 CP gRB 36x250/3.15	V 093099	FD36GB200V3,15
	4		4	7	CC 2000 CP gRB 36x250/4	N 084951	FD36GB200V4
	5		5	8.8	CC 2000 CP gRB 36x250/5	Q 221136	FD36GB200V5
	6		5.3	9	CC 2000 CP gRB 36x250/6	S 084955	FD36GB200V6
	8		6	10	CC 2000 CP gRB 36x250/8	V 090339	FD36GB200V8
	10		7	12	CC 2000 CP gRB 36x250/10	H 093157	FD36GB200V10
	12		7.6	13	CC 2000 CP gRB 36x250/12	W 093100	FD36GB200V12
	16		10.5	18	CC 2000 CP gRB 36x250/16	X 093101	FD36GB200V16
	20		10	17.5	CC 2000 CP gRB 36x250/20	H 086257	FD36GB200V20
	25		12	21	CC 2000 CP gRB 36x250/25	Y 081441	FD36GB200V25
	32		15.2	26	CC 2000 CP gRB 36x250/32	X 081440	FD36GB200V32
	40		19.6	33.6	CC 2000 CP gRB 36x250/40	W 081439	FD36GB200V40
	10		7.0	12	CC 209P CP gRB 36x250/10	L 084949	FD36GB200V10K
	12		7.6	13	CC 209P CP gRB 36x250/12	M 098497	FD36GB200V12K
	20		10	17.5	CC 209P CP gRB 36x250/20	M 084950	FD36GB200V20K
	25		12	21	CC 209P CP gRB 36x250/25	R 087461	FD36GB200V25K
	32		15.2	26	CC 209P CP gRB 36x250/32	L 081131	FD36GB200V32K
	40		19.6	33.6	CC 209P CP gRB 36x250/40	W 087373	FD36GB200V40K

Minimum trip indicator operating voltage: 90 V

See Fuse Blocks, Fuse Holders and Fuse clips

Pack: 1 piece

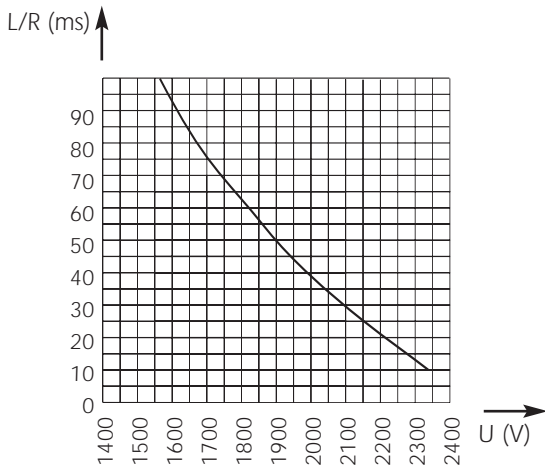


DC Ferrule Fuses 36x250 gR 2000V DC



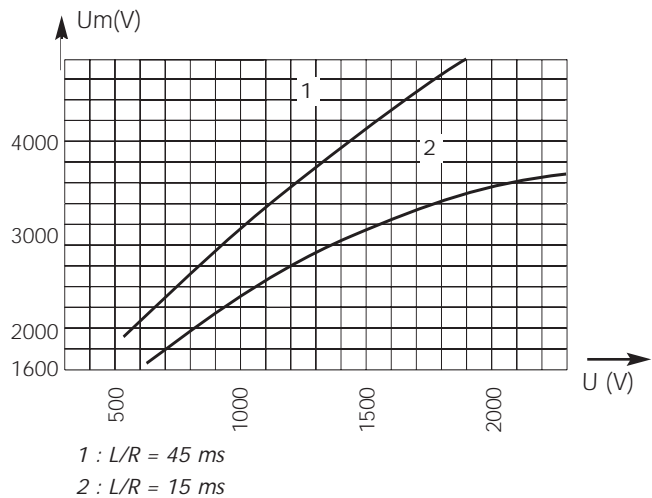
gRB from 0.8 to 40 A

Electrical characteristics DC applications data



Above: Curve indicates the maximum permissible value of time constant L/R as a function of DC working voltage

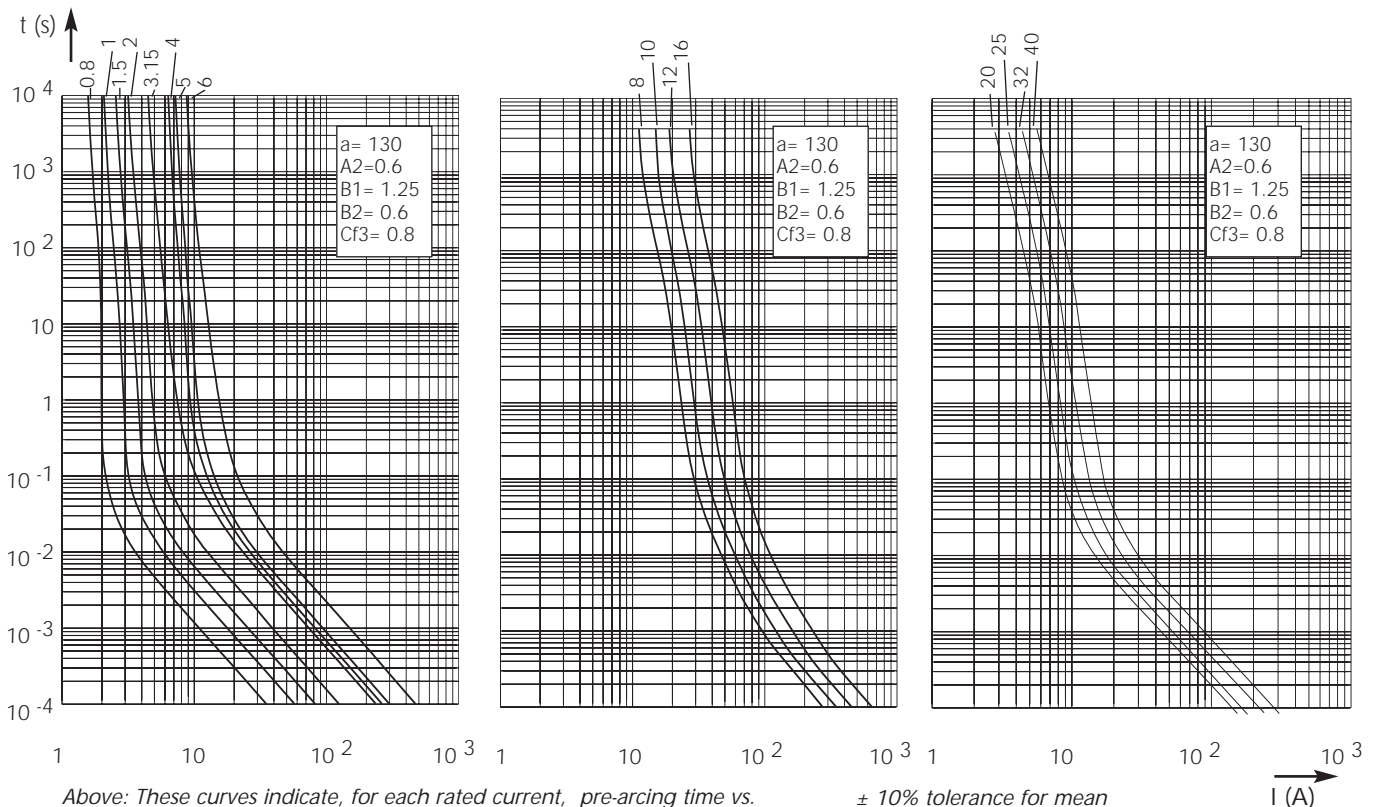
Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Max. AC voltage (50/60 Hz):
3000 V with breaking capacity of 50 kA

Time vs. current characteristics



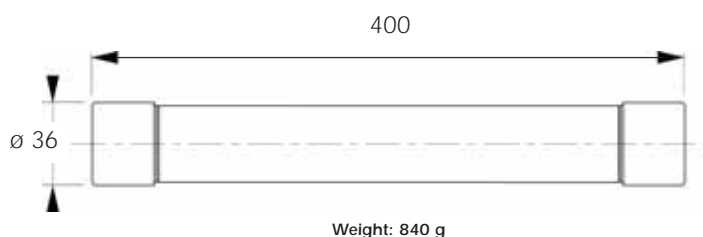


DC Ferrule Fuses 36x400 gR 4000V DC



gRC from 0.8 to 20 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Reference Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
36x400	0.8	@ 4000 V DC 30 kA L/R = 20 ms	1.5	2.5	CC 4000 CP gRC 36x400/0.8	Z 220293	FD36GC400V0,8
	1		1.6	2.7	CC 4000 CP gRC 36x400/1	R 221137	FD36GC400V1
	1.5		2.4	4.1	CC 4000 CP gRC 36x400/1.5	S 221138	FD36GC400V1,5
	2		3.0	5.0	CC 4000 CP gRC 36x400/2	Z 089423	FD36GC400V2
	3.15		3.9	6.4	CC 4000 CP gRC 36x400/3.15	T 221139	FD36GC400V3,15
	4		6.0	10	CC 4000 CP gRC 36x400/4	A 089424	FD36GC400V4
	5		9.6	16	CC 4000 CP gRC 36x400/5	Y 098461	FD36GC400V5
	6		11	19	CC 4000 CP gRC 36x400/6	E 099847	FD36GC400V6
	8*		12	22	CC 4000 CP gRC 36x400/8	V 221140	FD36GC400V8
	10*		13	23	CC 4000 CP gRC 36x400/10	G 098469	FD36GC400V10
	12*		15	26	CC 4000 CP gRC 36x400/12	C 098396	FD36GC400V12
	16*		15	27	CC 4000 CP gRC 36x400/16	Z 083052	FD36GC400V16
	20*		18.6	33	CC 4000 CP gRC 36x400/20	F 099848	FD36GC400V20

See Fuse Blocks, Fuse Holders and Fuse clips

* Minimum breaking current = 5 I_N

Pack: 1 piece

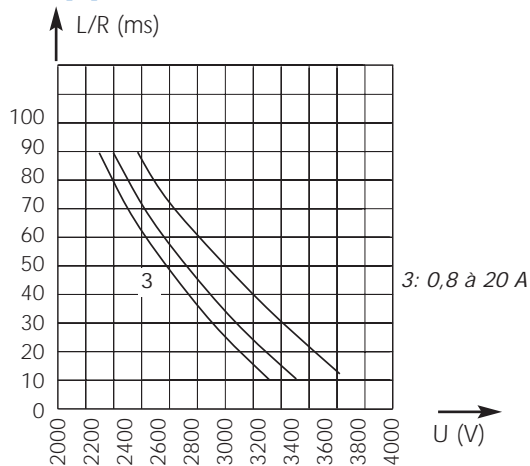


DC Ferrule Fuses 36x400 gR 4000V DC



gRC from 0.8 to 20 A

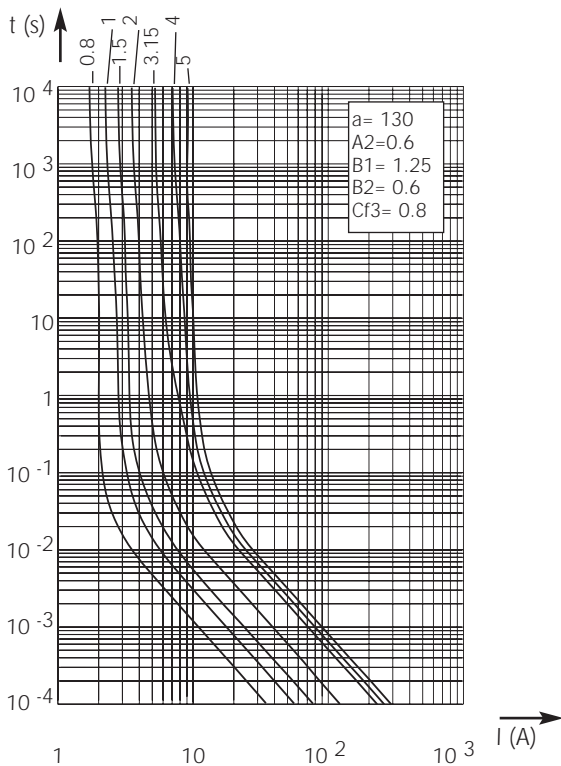
Electrical characteristics DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

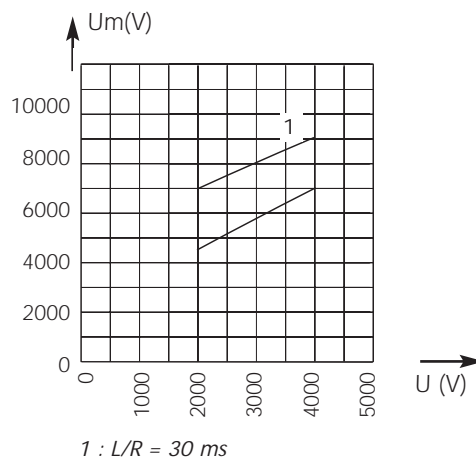
Max. AC voltage (50/60 Hz): 4000 V with breaking capacity of 50 kA

Time vs. current characteristics



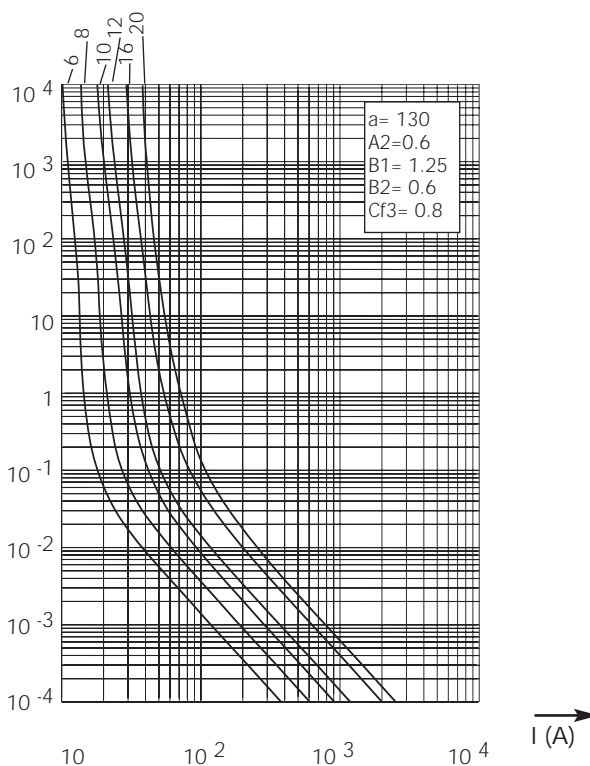
Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



1 : $L/R = 30$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage, which may appear across fuse terminals, vs. DC working voltage

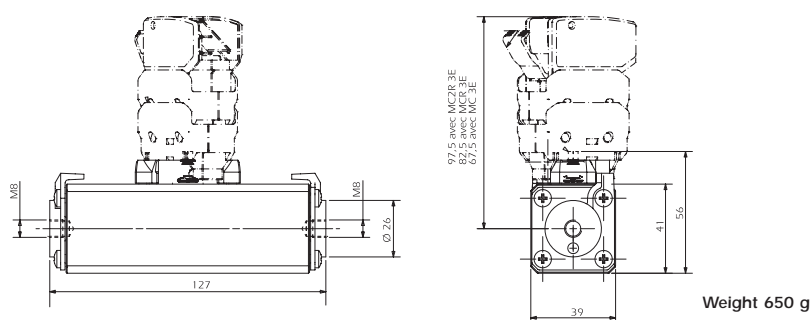
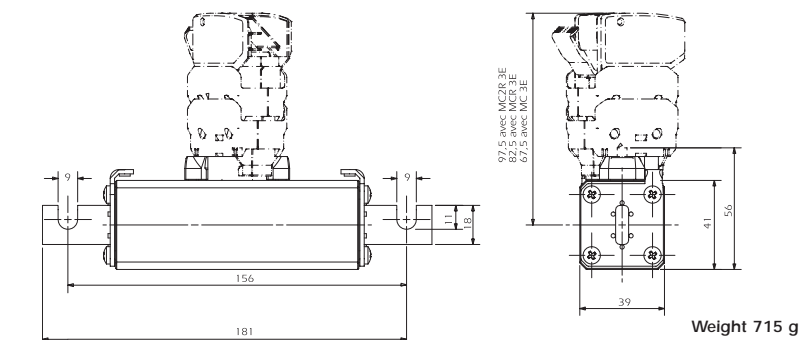


$\pm 10\%$ tolerance for mean pre-arcing current

DC Square-body Fuses Sizes 120 to 123 gR 750V DC

Size 120
gRC from 200 to 250 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking capacity	Watts loss $0.8 I_N$ (W)	I_N (W)	Max. I^2t @ 900 V = L/R 40 ms $IP = 10 I_N$ (A ² S)	Max. I^2t $IP = 50 I_N$ (A ² S)	Designation	Ref. Number	Catalog Number
120	50	@ 750 V= 100k A L/R = 100 ms	4.4	8.1	42500	8500	CC 7,5 gRC 120 EF 0050	Y084776	D120GC75V50EF
	63		5.7	10.4	75500	15000	CC 7,5 gRC 120 EF 0063	R085207	D120GC75V63EF
	80		7.3	13.4	125000	24500	CC 7,5 gRC 120 EF 0080	Q085206	D120GC75V80EF
	100		9.1	16.7	200000	40000	CC 7,5 gRC 120 EF 0100	P085205	D120GC75V100EF
	125		11.5	21	315000	62500	CC 7,5 gRC 120 EF 0125	R086242	D120GC75V125EF
	160		15	27	485000	100000	CC 7,5 gRC 120 EF 0160	N085204	D120GC75V160EF
	50	@ 900 V= 100k A L/R = 40 ms	4.4	8.1	42500	8500	CC 7,5 gRC 120 TTF 0050	B220824	D120GC75V50TF
	63		5.7	10.4	75500	15000	CC 7,5 gRC 120 TTF 0063	Q082400	D120GC75V63TF
	80		7.3	13.4	125000	24500	CC 7,5 gRC 120 TTF 0080	Z090435	D120GC75V80TF
	100		9.1	16.7	200000	40000	CC 7,5 gRC 120 TTF 0100	R082401	D120GC75V100TF
	125		11.5	21	315000	62500	CC 7,5 gRC 120 TTF 0125	P085251	D120GC75V125TF
	160		15	27	485000	100000	CC 7,5 gRC 120 TTF 0160	R085253	D120GC75V160TF

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece

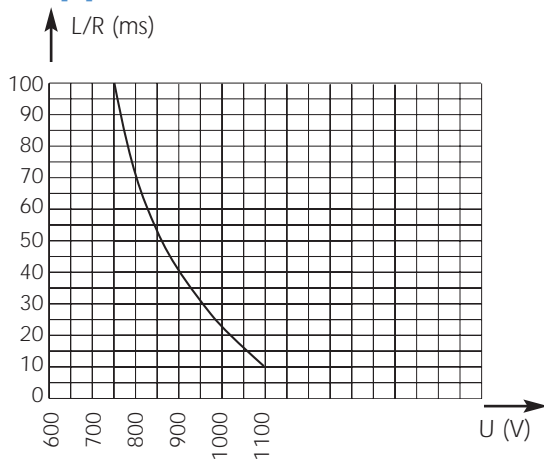


DC Square-body Fuses Sizes 120 to 123 gR 750V DC



size 120
gRC from 200 to 250 A

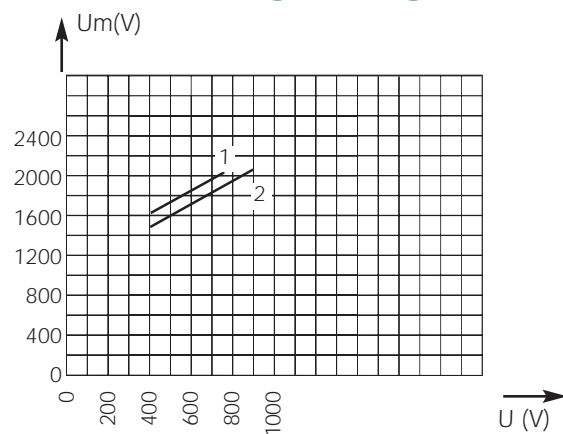
Electrical characteristics DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

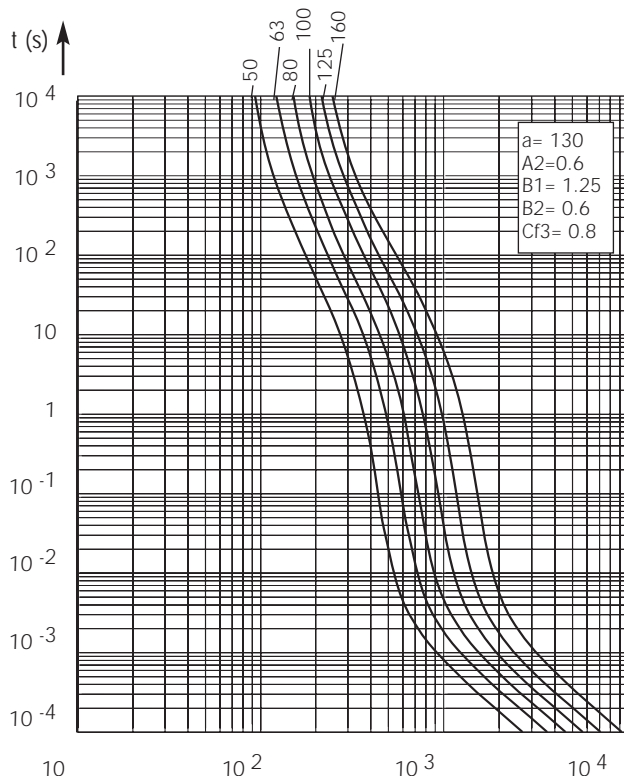
Peak arc voltage vs. working voltage



1 : $L/R = 100$ ms
2 : $L/R = 40$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



$\pm 7\%$ tolerance for mean pre-arcing current

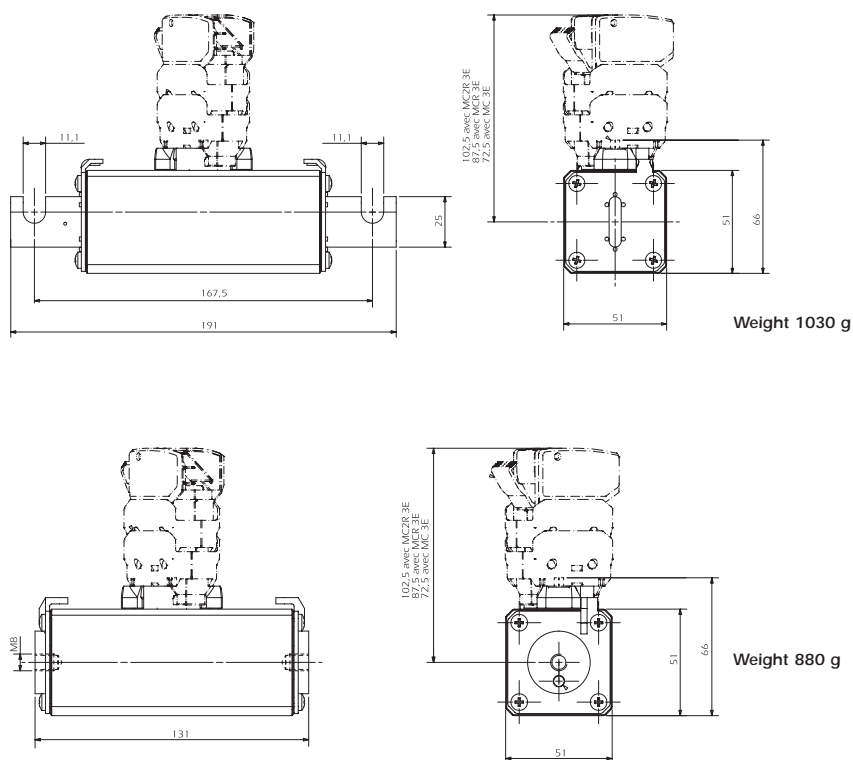
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 120 to 123 gR 750V DC

Sizes 121
gRC from 200 to 250 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)	@ 900 V = L/R 40 ms $IP = 10 I_N$ (A ² S)	$IP = 50 I_N$ (A ² S)			
121	200	@750 V DC	20.5	37.5	755000	150000	CC 7,5 gRC 121 EF 0200	A086710	D121GC75V200EF
	250	100 kA	25.5	46.7	1250000	250000	CC 7,5 gRC 121 EF 0250	M085203	D121GC75V250EF
		L/R = 100 ms							
	200	@ 900 V DC	20.5	37.5	755000	150000	CC 7,5 gRC 121 TTF 0200	N085250	D121GC75V200TF
	250	100 kA	25.5	46.7	1250000	250000	CC 7,5 gRC 121 TTF 0250	Q085252	D121GC75V250TF
		L/R = 40 ms							

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece



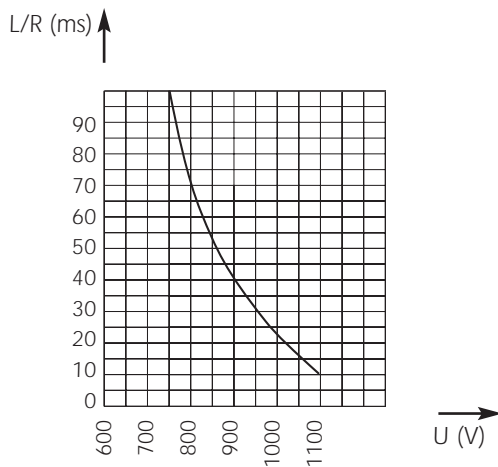
DC Square-body Fuses Sizes 120 to 123 gR 750V DC



Sizes 121
gRC from 200 to 250 A

Electrical characteristics

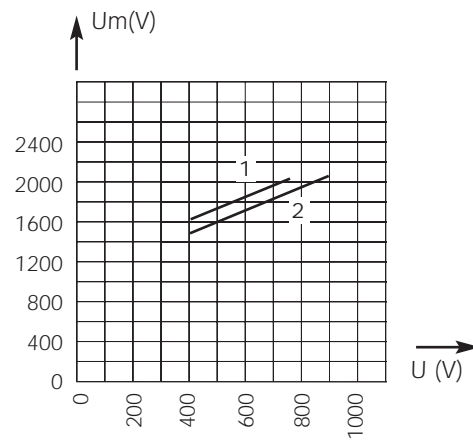
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

Peak arc voltage vs. working voltage

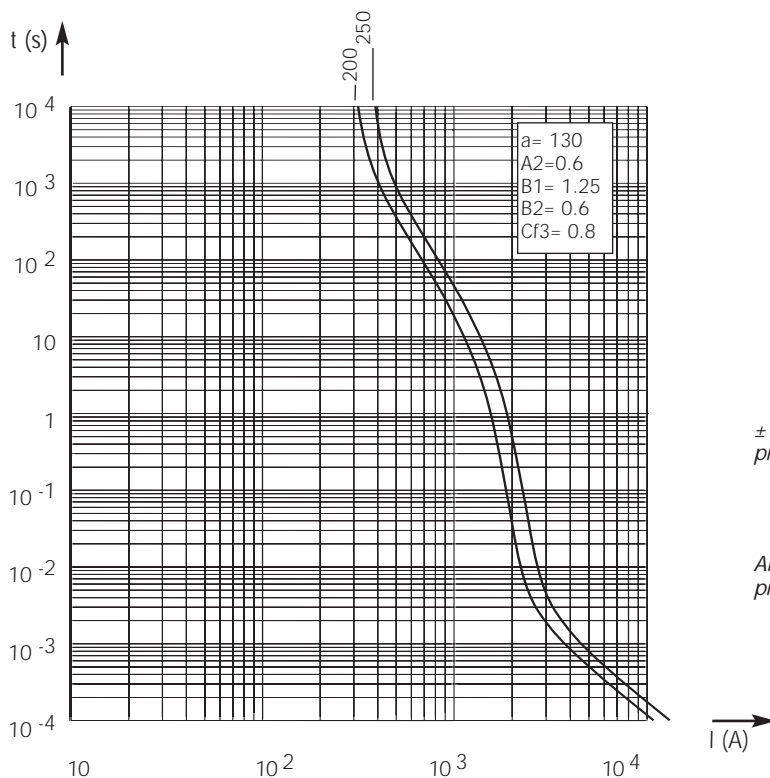


1 : $L/R = 100$ ms

2 : $L/R = 40$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



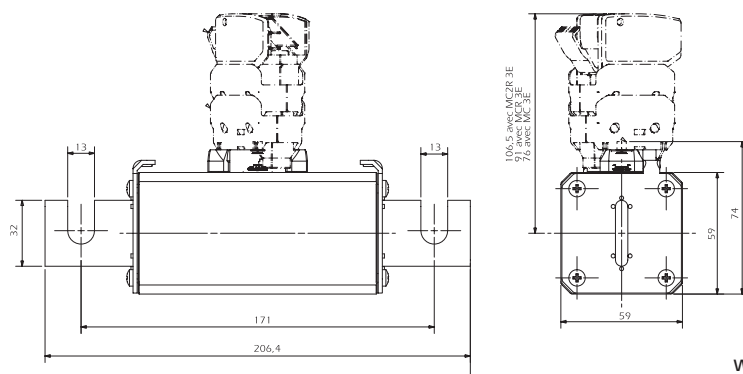
$\pm 7\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

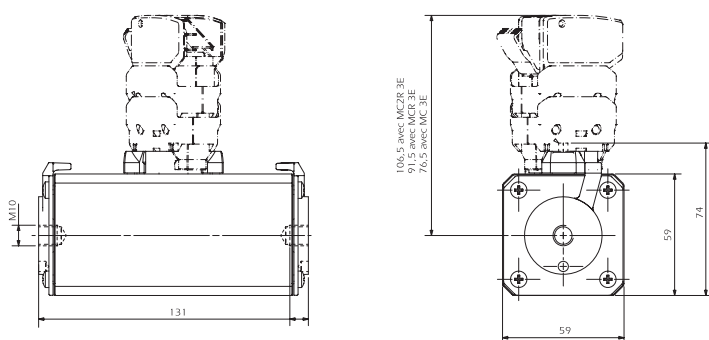
DC Square-body Fuses Sizes 120 to 123 gR 750V DC

Size 122
gRC-gRD from 250 to 500 A

Dimensions



Weight: 1300 g



Weight: 1150 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss $0.8 I_N$ (W)	I_N (W)	Max. I^2t @ 900 V = L/R 40 ms $IP = 10 I_N$ (A ² S)	Max. I^2t P = 50 I_N (A ² S)	Designation	Ref. Number	Catalog Number
122	250	@750 V DC 100 kA L/R = 100 ms	25.5	46.7	1.25 10 ⁶	250,000	CC 7,5 gRC 122 EF 0250	A087331	D122GC75V250EF
	315		31.5	58	2 10 ⁶	400,000	CC 7,5 gRC 122 EF 0315	B087332	D122GC75V315EF
	350		35	64.5	2.5 10 ⁶	500,000	CC 7,5 gRC 122 EF 0350	W221141	D122GC75V350EF
	400		40.5	74.5	3.1 10 ⁶	600,000	CC 7,5 gRC 122 EF 0400	L089388	D122GC75V400EF
	450		49	90	4 10 ⁶	800,000	CC 7,5 gRD 122 EF 0450	P220951	D122GD75V450EF
	500*		52	95	6.2 10 ⁶ *	1.2 10 ⁶ *	CC 7,5 gRD 122 EF 0500*	Q220952	D122GD75V500EF
	250	@ 900 V DC 100 kA L/R = 40 ms	25.5	46.7	1.25 10 ⁶	250,000	CC 7,5 gRC 122 TTF 0250	B090437	D122GC75V250TF
	315		31.5	58	2 10 ⁶	400,000	CC 7,5 gRC 122 TTF 0315	M085249	D122GC75V315TF
	350		35	64.5	2.5 10 ⁶	500,000	CC 7,5 gRC 122 TTF 0350	G220898	D122GC75V350TF
	400		40.5	74.5	3.1 10 ⁶	600,000	CC 7,5 gRC 122 TTF 0400	C090438	D122GC75V400TF
	450		49	90	4 10 ⁶	800,000	CC 7,5 gRD 122 TTF 0450	R220953	D122GD75V450TF
	500*		52	95	6.2 10 ⁶ *	1.2 10 ⁶ *	CC 7,5 gRD 122 TTF 0500*	S220954	D122GD75V500TF

* Max. I^2t @ 800 V=, L/R=40 ms and Breaking capacity = 100 kA @ 750VDC/50ms

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece

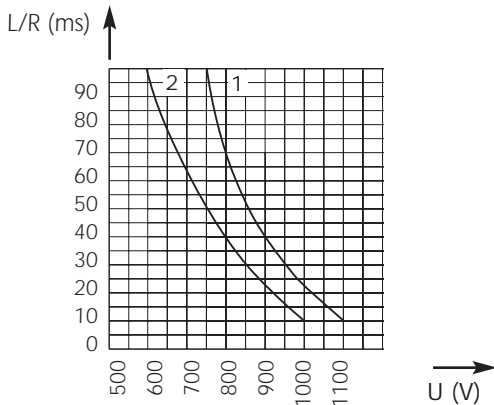


DC Square-body Fuses Sizes 120 to 123 gR 750V DC



Size 122
gRC-gRD from 250 to 500 A

Electrical characteristics DC applications data

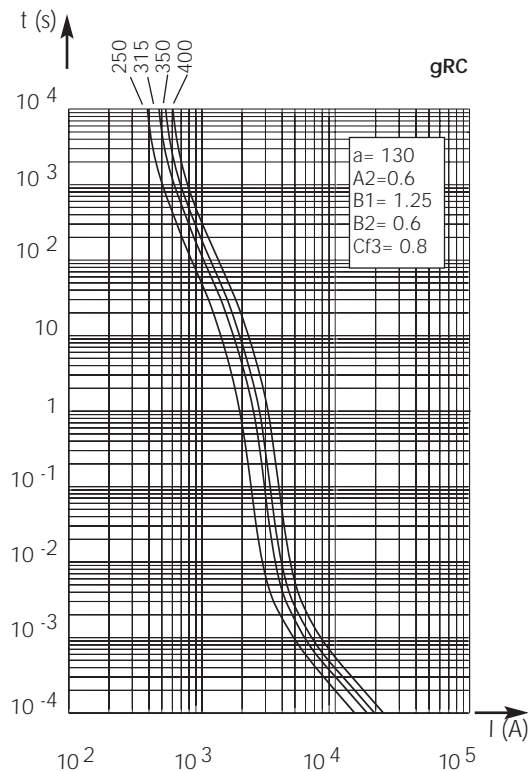


1: curve gRC - gRD 450A
2: curve gRD 500A

Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

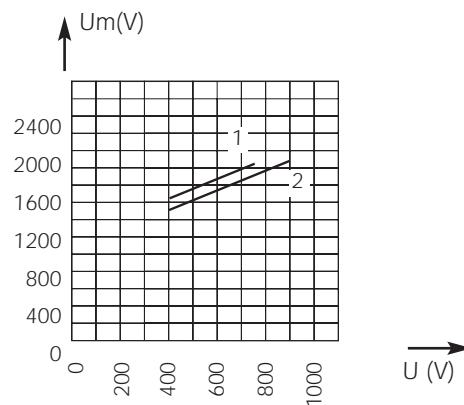
Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

Time vs. current characteristics



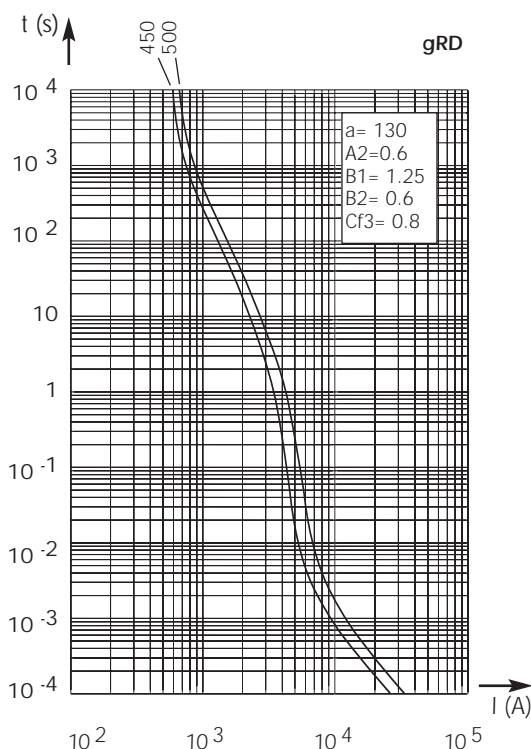
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

Peak arc voltage vs. working voltage



1: $L/R = 100$ ms
2: $L/R = 40$ ms

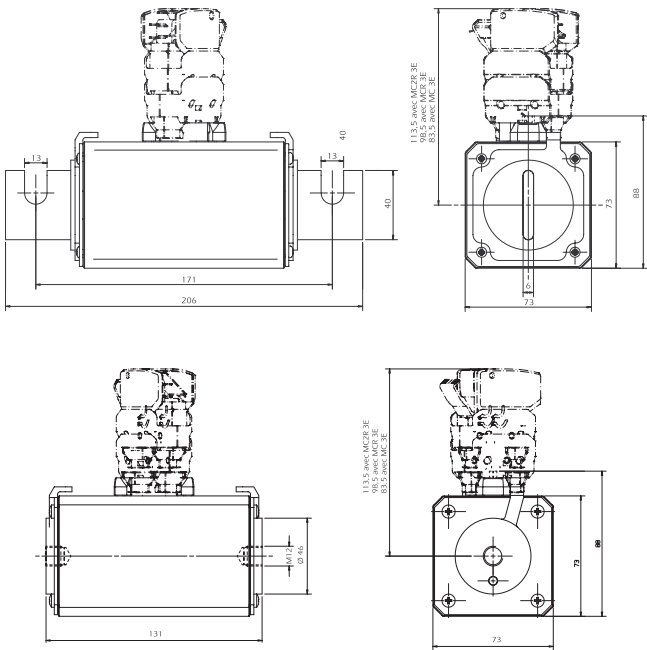
Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



$\pm 7\%$ tolerance for mean pre-arcing current

DC Square-body Fuses Sizes 120 to 123 gR 750V DC

Dimensions



Weight: 2100 g

Weight: 1900 g

Size 123
gRB-gRC-gRD from 500 to 800 A



Main Characteristics

Size	Current rating I_N (A)	Breaking capacity	Watts loss 0.8 I_N (W)	I_N (W)	Max. I^2t @ 900 V = L/R 40 ms $I_P = 10 I_N$ (A ² s) $I_P = 50 I_N$ (A ² s)	Designation	Ref. Number	Catalog Number
123	500	@ 750 V DC 100 kA L/R = 100 ms	51	93.5	5 10 ⁶	CC 7,5 gRC 123 EF 0500	M089389	D123GC75V500EF
	500	@ 900 V DC 100 kA L/R = 40 ms	51	93.5	5 10 ⁶	CC 7,5 gRC 123 TTF 0500	D090439	D123GC75V500TF
					maximum I^2t (A ² s) @ 800 V = L/R 40 ms $I_P = 10 I_N$ $I_P = 50 I_N$			
	630	@ 750 V DC 100 kA L/R = 50 ms	74		7.5 10 ⁶	CC 7,5 gRB 123 EF 0630	B098556	D123GB75V630EF
	700		82		10 10 ⁶	CC 7,5 gRB 123 EF 0700	Q078191	D123GB75V700EF
	750		82		10 10 ⁶	CC 7,5 gRD 123 EF 0750	F220943	D123GD75V750EF
	630		74		7.5 10 ⁶	CC 7,5 gRB 123 TTF 0630	C098557	D123GB75V630TF
	700		82		10 10 ⁶	CC 7,5 gRB 123 TTF 0700	F090441	D123GB75V700TF
	750		82		10 10 ⁶	CC 7,5 gRD 123 TTF 0750	H220945	D123GB75V750TF
					maximum I^2t (A ² s) @ 660 V = L/R 30 ms $I_P = 10 I_N$ $I_P = 50 I_N$			
	800	@ 660 V DC 100 kA L/R = 50 ms	90		12.15 10 ⁶	CC 6.6 gRB 123 EF 0800	G220944	D123GB66V800EF
	800		90		12.15 10 ⁶	CC 6.6 gRB 123 TTF 0800	J220946	D123GB66V800TF

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece



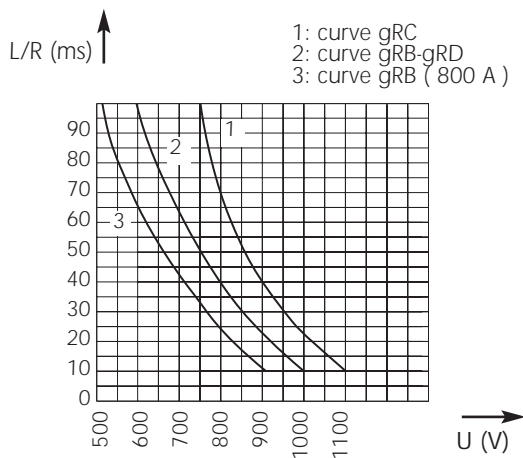
DC Square-body Fuses Sizes 120 to 123 gR 750V DC



Size 123
gRB-gRC-gRD from 500 to 800 A

Electrical characteristics

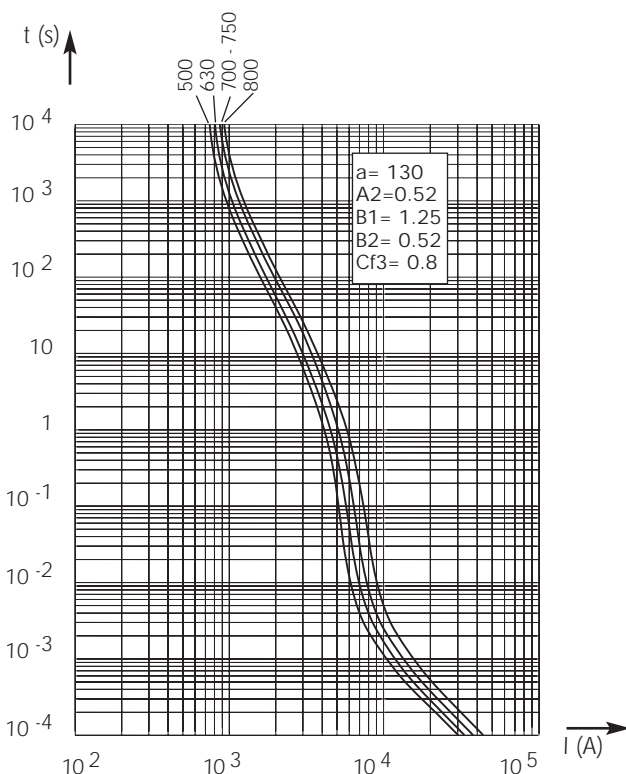
DC applications data



Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

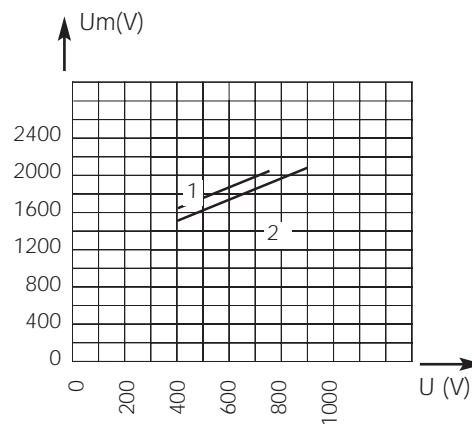
Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

Time vs. current characteristics



Above: curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



1: $L/R = 100 \text{ ms}$

2: $L/R = 40 \text{ ms}$

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Current rating (A)	630	550	Maximum operating current (A)
	700	600	
	750	600	
	800	650	

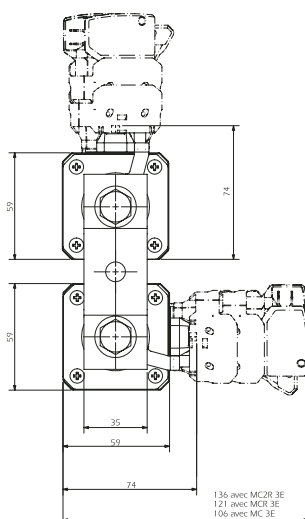
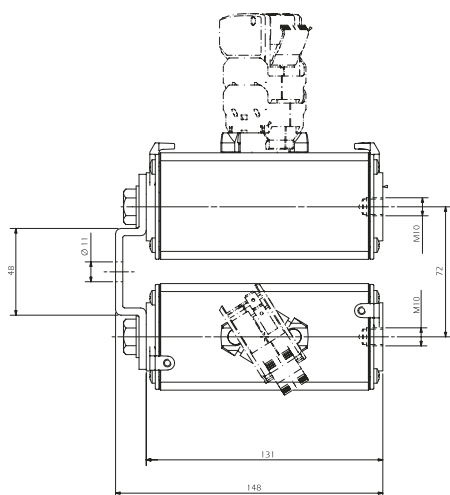
± 7% tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 2x122 - 2x123 gR 750V DC

Size 2x122
gRC - gRD from 500 to 1000 A

Dimensions



Weight: 2825 g

Main Characteristics

Size	Current rating I _N (A)	Breaking Capacity	Watts loss		Max. I ² t		Designation	Ref. Number	Catalog Number
			0.8 I _N (W)	I _N (W)	@ 900 V = L/R 40 ms I _P = 10 I _N (A ² S)	P = 50 I _N (A ² S)			
2x122	500	@ 900V DC 100 kA L/R = 40 ms	51	94	5 10 ⁶	1 10 ⁶	CC 7,5 gRC 2122 TTF 0500	Q 090473	D2122GC75V500TF
	630		63	116	8 10 ⁶	1.6 10 ⁶	CC 7,5 gRC 2122 TTF 0630	R 090474	D2122GC75V630TF
	800		81	149	12.4 10 ⁶	2.4 10 ⁶	CC 7,5 gRC 2122 TTF 0800	S 090475	D2122GC75V800TF
	900		98	180	16 10 ⁶	3.2 10 ⁶	CC 7,5 gRD 2122 TTF 0900	T 220955	D2122GD75V900TF
					maximum I ² t (A ² s) @ 800 V = L/R 40 ms I _P = 10 I _N I _P = 50 I _N				
		@ 750 V DC 100 kA L/R = 100 ms							
	1000*		104	190	25 10 ⁶ *	4.8 10 ⁶ *	CC 7,5 gRD 2122 TTF 1000*	V 220956	D2122GD75V10CTF

Microswitch: MC 3E 1-5N Ref. Number: D310020

* Max I^2t @ 800V = 750 VDC 100 kA L/R = 50 ms and breaking capacity @750 VDC 100 kA L/R = 50 ms

Pack: 1 piece

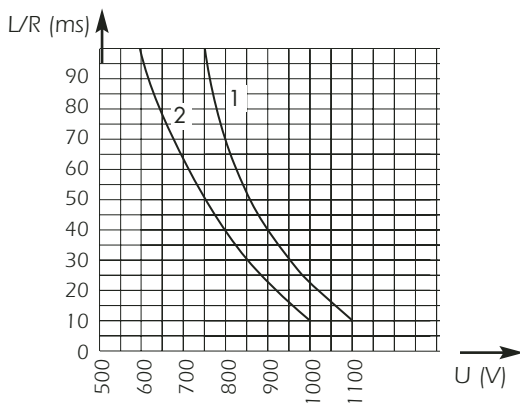


DC Square-body Fuses Sizes 2x122 - 2x123 gR 750V DC

Size 2x122

gRC - gRD from 500 to 1000 A

Electrical characteristics DC applications data

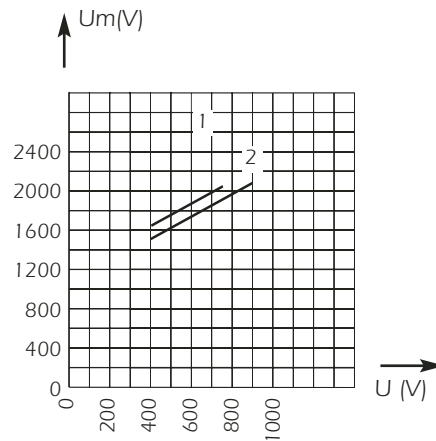


1 : curve gRC - gRD 900
2 : curve gRD 1000

Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

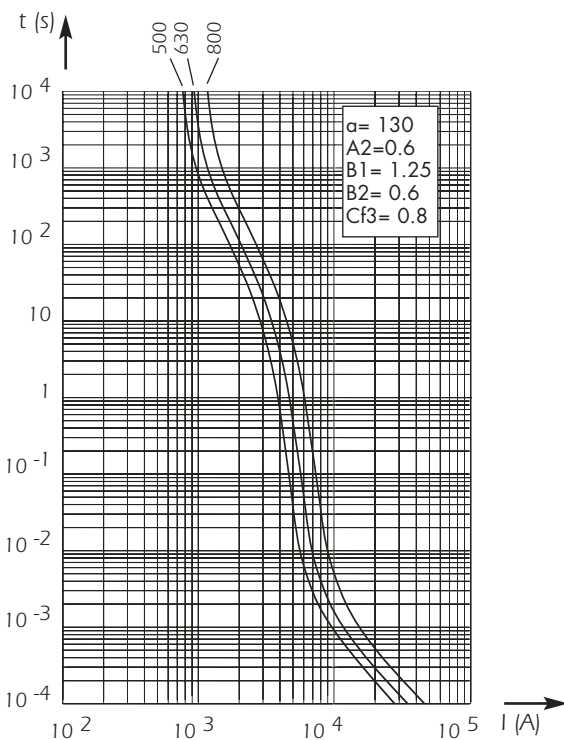
Peak arc voltage vs. working voltage



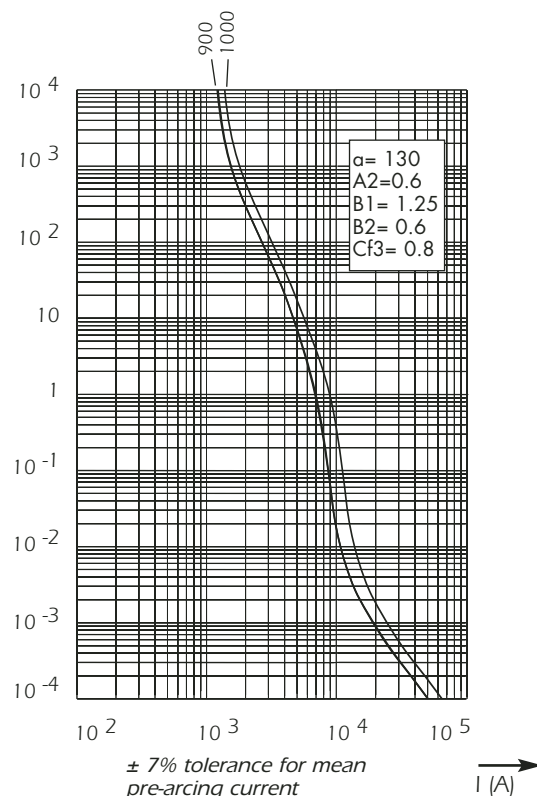
1 : $L/R = 100$ ms
2 : $L/R = 40$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



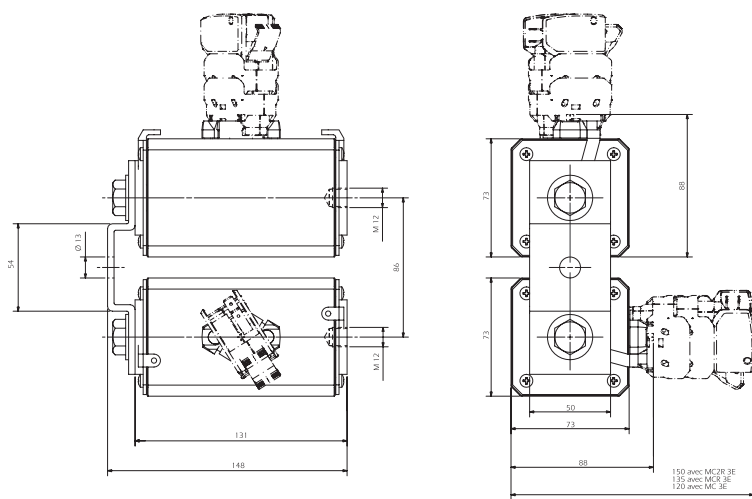
$\pm 7\%$ tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 2x122 - 2x123 gR 750V DC

Size 2x123
gRC-gRB-gRD from 1000 to 1600 A

Dimensions



Weight: 4190 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 900 V = L/R 40 ms $I_P = 10 I_N$ $I_P = 50 I_N$ (A ² S)		Designation	Ref. Number	Catalog Number
2x123	1000	@ 750 V DC 100 kA L/R = 100 ms @ 900 V DC 100 kA L/R = 40 ms	102	187	20 10 ⁶	4 10 ⁶	CC 7,5 gRC 2123 TTF 1000	Z 090481	D2123GC75V10CTF
					maximum I^2t (A ² s) @ 800 V = L/R 40 ms $I_P = 10 I_N$ $I_P = 50 I_N$				
	1250	@ 750 V DC	148	See max. operating current next page	30 10 ⁶	6 10 ⁶	CC 7,5 gRB 2123 TTF 1250	D 098558	D2123GB75V12CTF
	1400	100 kA	164		40 10 ⁶	8 10 ⁶	CC 7,5 gRB 2123 TTF 1400	B 090483	D2122GB75V14CTF
	1500	L/R = 50 ms	164		40 10 ⁶	8 10 ⁶	CC 7,5 gRD 2123 TTF 1500	K 220947	D123GD75V1500TF
	1600	@ 660 V DC 100 kA L/R = 50 ms	180		48.6 10 ⁶	10.10 ⁶	CC 6.6 gRB 2123 TTF 1600	L 220948	D123GB66V1600TF

Microswitch: MC 3E 2-5N Reference Number: D310020

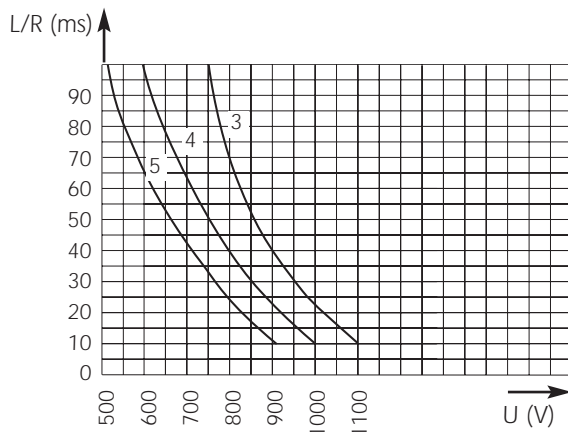
Pack: 1 piece

DC Square-body Fuses Sizes 2x122 - 2x123 gR 750V DC

Size 2x123
gRC-gRB-gRD from 1000 to 1600 A

Electrical characteristics

DC applications data

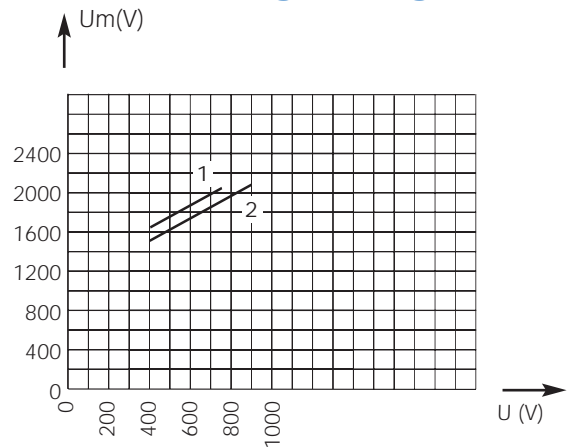


3: curve gRC
4: curve gRD
5: curve gRB 1600 A

Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage.

Max. AC voltage (50/60 Hz):
1250 V with breaking capacity of 170 kA

Peak arc voltage vs. working voltage

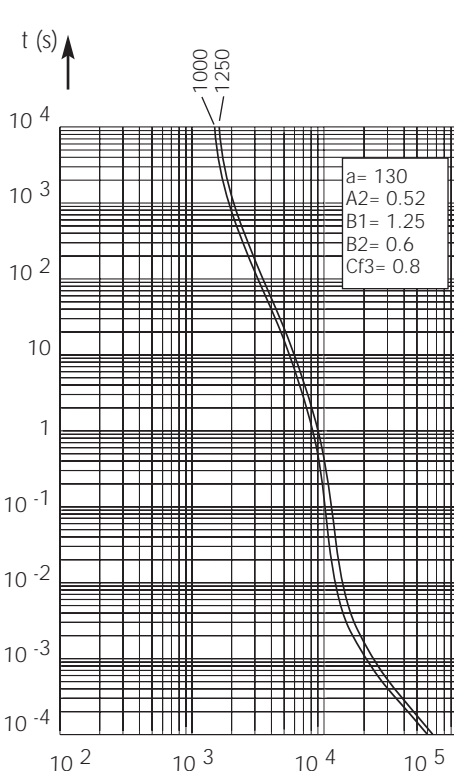


1: $L/R = 100$ ms

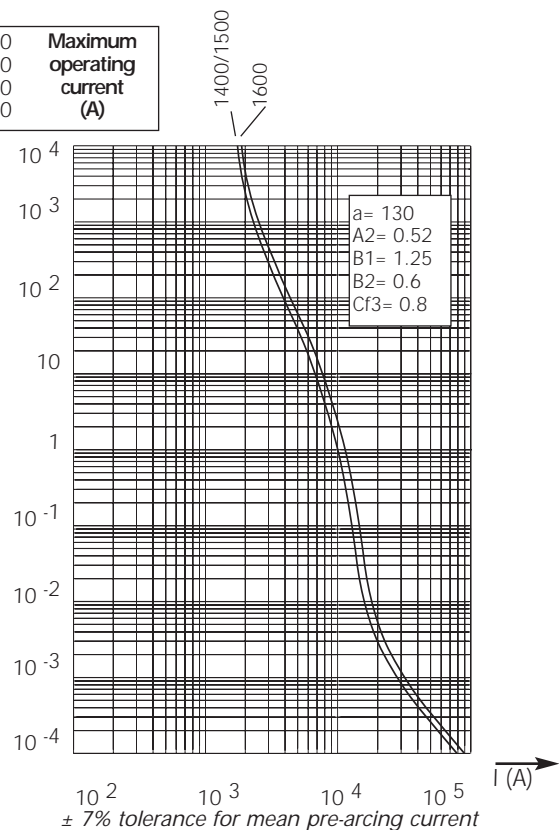
2: $L/R = 40$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



Current rating (A)	1250	1100	Maximum operating current (A)
	1400	1200	
	1500	1200	
	1600	1300	



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

$\pm 7\%$ tolerance for mean pre-arcing current

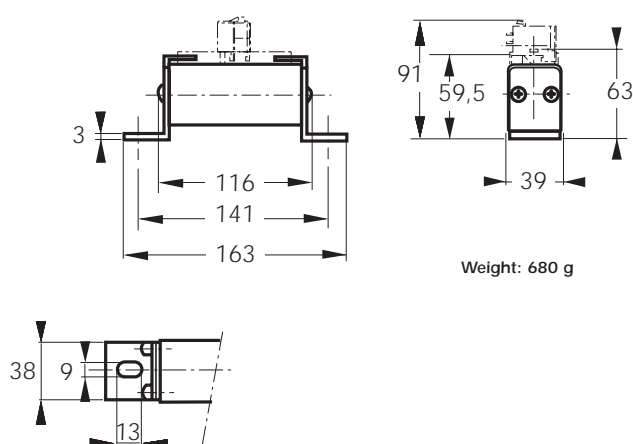


DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC



Size 70
SRF from 20 to 215 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 1000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² s)	L/R = 45 ms (A ² s)			
70	20	@ 1200 V DC 100 kA L/R = 15 ms	4.5	10	180	310	CC 12 SRF 70 QF 0020	C076638	D70SF120V20QF
	25		7	15.5	180	310	CC 12 SRF 70 QF 0025	S079435	D70SF120V25QF
	32		8.5	18.5	350	610	CC 12 SRF 70 QF 0032	T079436	D70SF120V32QF
	40		10	22	580	1000	CC 12 SRF 70 QF 0040	V079437	D70SF120V40QF
	50		12	26	1030	1800	CC 12 SRF 70 QF 0050	W079438	D70SF120V50QF
	63		15	33	1600	2800	CC 12 SRF 70 QF 0063	X079439	D70SF120V63QF
	80		18.5	37.5	3100	5400	CC 12 SRF 70 QF 0080	Y079440	D70SF120V80QF
	100		21.5	44.5	5800	10000	CC 12 SRF 70 QF 0100	Z079441	D70SF120V100QF
	125		28	54	9200	16000	CC 12 SRF 70 QF 0125	A079442	D70SF120V125QF
	160		34	64	19200	33200	CC 12 SRF 70 QF 0160	B079443	D70SF120V160QF
	200		35	65.5	45000	78500	CC 12 SRF 70 QF 0200	C079444	D70SF120V200QF
	215		46	89	55000	95000	CC 12 SRF 70 QF 0215	D079445	D70SF120V215QF

Microswitch: MC 3E 1-5N Ref. Number : D310020

Pack: 1 piece



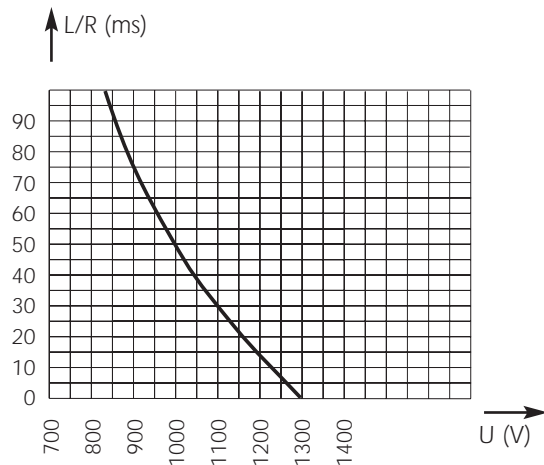
DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC

Size 70

SRF from 20 to 215 A

Electrical characteristics

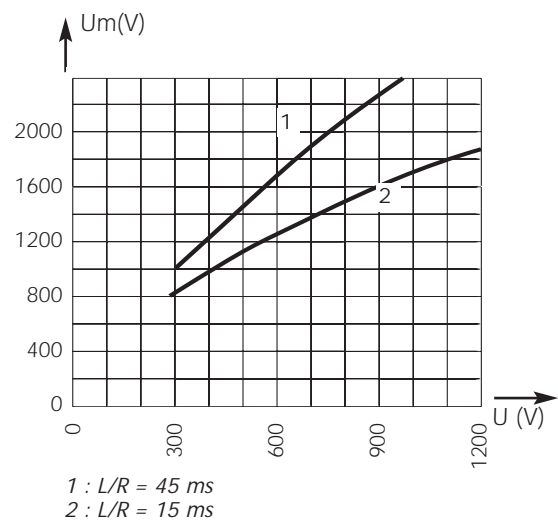
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

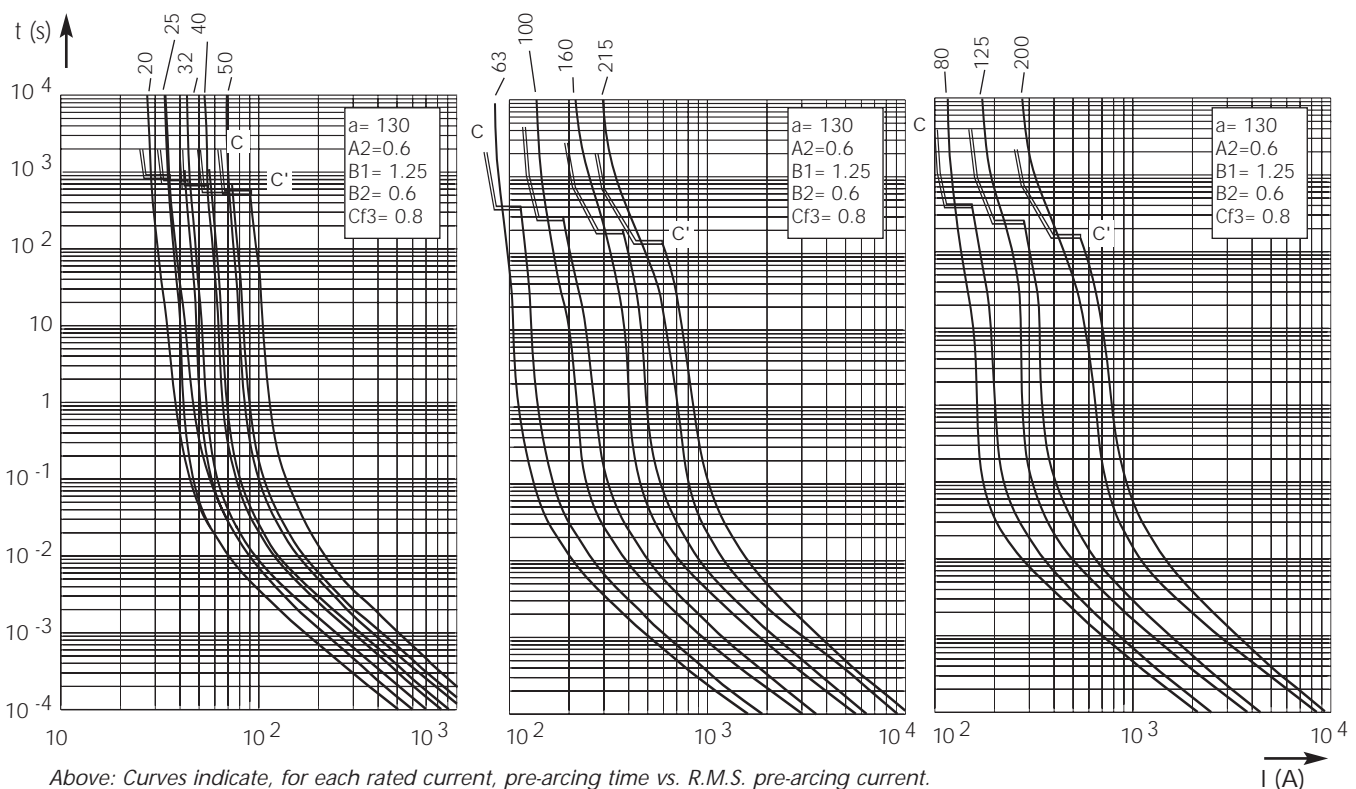
Max. AC voltage (50/60 Hz):
900 V with breaking capacity of 100 kA

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage, which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

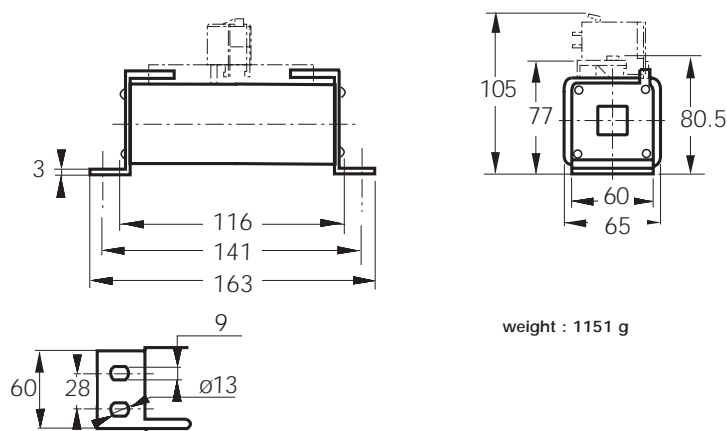


DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC



Size 72
SRG from 160 to 420 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 1000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
72	160	@ 1200 V DC 100 kA L/R = 15 ms	41	77.5	12000	20000	CC 12 SRG 72 QF 0160	K079428	D72SG120V160QF
	200		48	88	21000	36000	CC 12 SRG 72 QF 0200	L079429	D72SG120V200QF
	250		57	96	45500	78500	CC 12 SRG 72 QF 0250	M079430	D72SG120V250QF
	315		60	110	90000	154000	CC 12 SRG 72 QF 0315	N079431	D72SG120V315QF
	400		66	129	182000	314000	CC 12 SRG 72 QF 0400	P079432	D72SG120V400QF
	420		67	131	220000	380000	CC 12 SRG 72 QF 0420	Q079433	D72SG120V420QF

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece



DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC

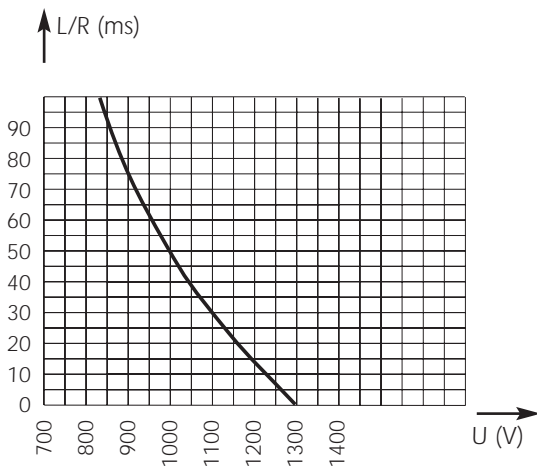


Size 72

SRG from 160 to 420 A

Electrical characteristics

DC applications data

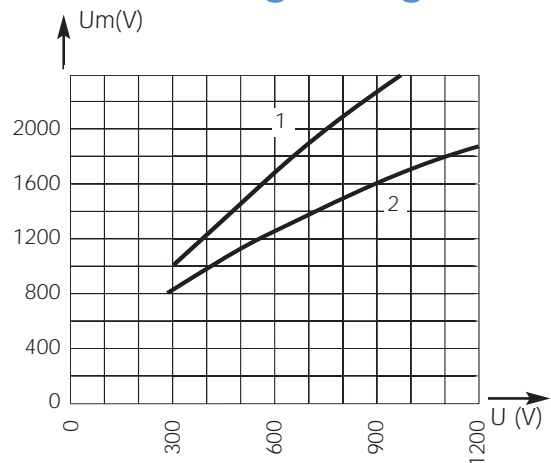


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

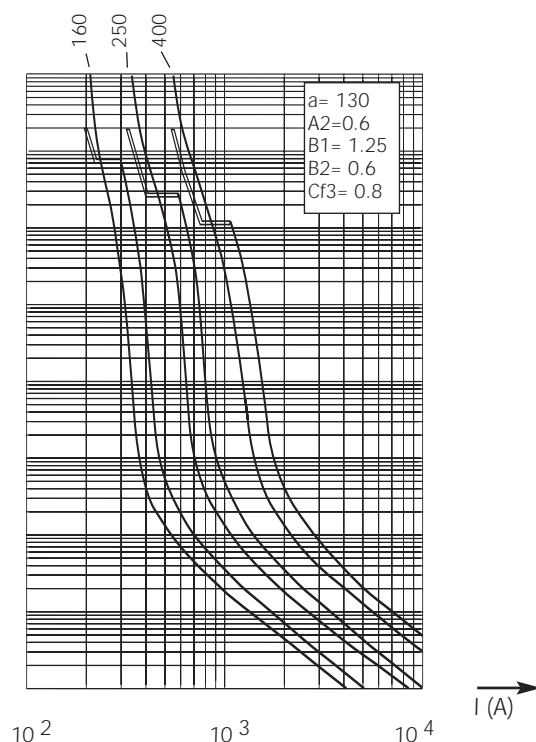
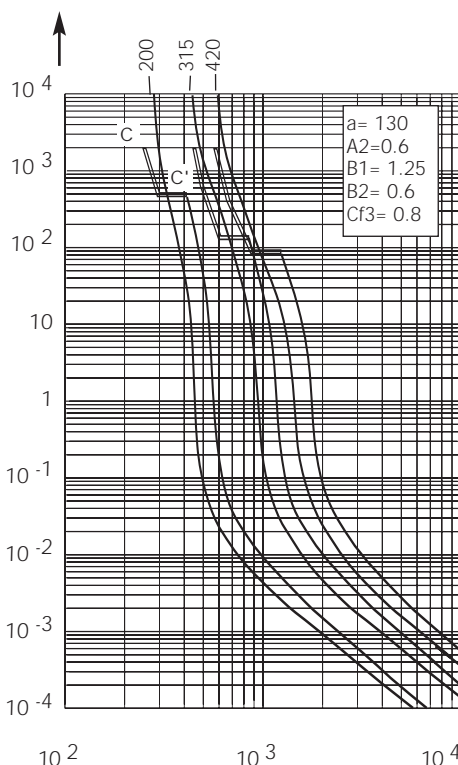
900 V with breaking capacity of 100 kA

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

Time vs. current characteristics



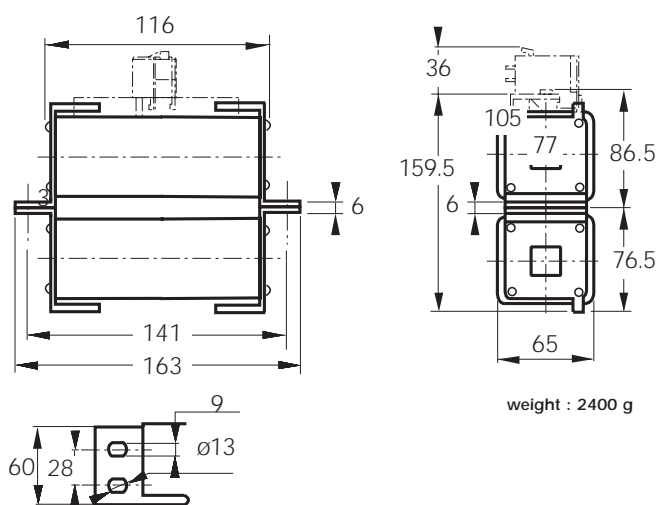
Above, left and right: These curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC

Size 2x72
SRG from 500 to 840 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 1000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
2x72	500	@ 1200 V DC 100 kA L/R = 15 ms	120	202	182000	314000	CC 12 SRG 272 QF 500	P077983	D 272 SG 120V 500 QF
	630		126	230	360000	616000	CC 12 SRG 272 QF 630	F079447	D 272 SG 120V 630 QF
	800		139	270	728000	1.25 10 ⁶	CC 12 SRG 272 QF 800	G079448	D 272 SG 120V 800 QF
	840		142	275	880000	1.53 10 ⁶	CC 12 SRG 272 QF 840	H079449	D 272 SG 120V 840 QF

Microswitch: MC 3E 1-5N Ref. Number: D310020

Pack: 1 piece



DC Square-body Fuses Sizes 70- 72 - 2x72 SR 1200V DC

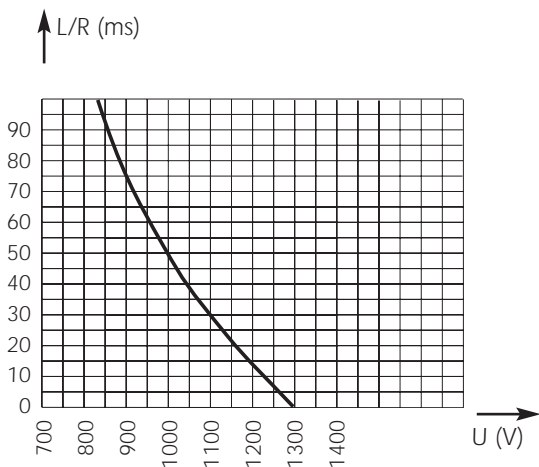


Size 2x72

SRG from 500 to 840 A

Electrical characteristics

DC applications data

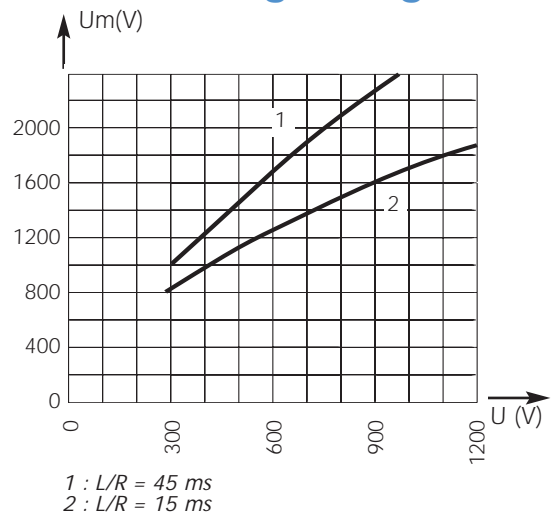


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

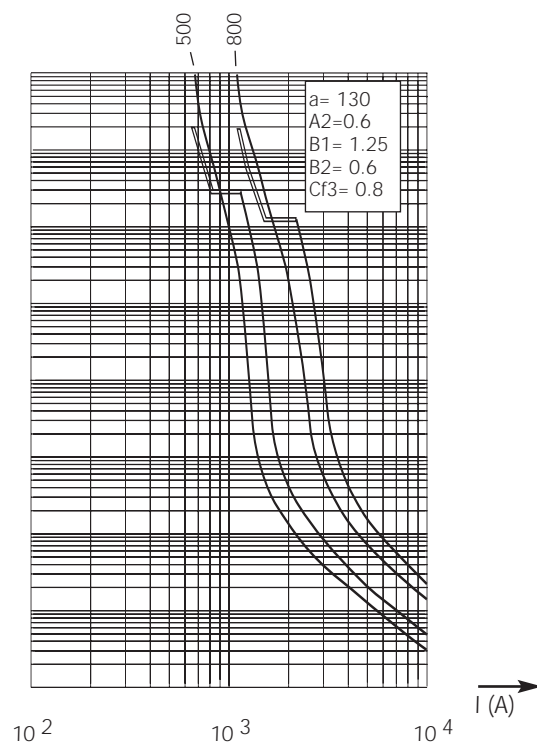
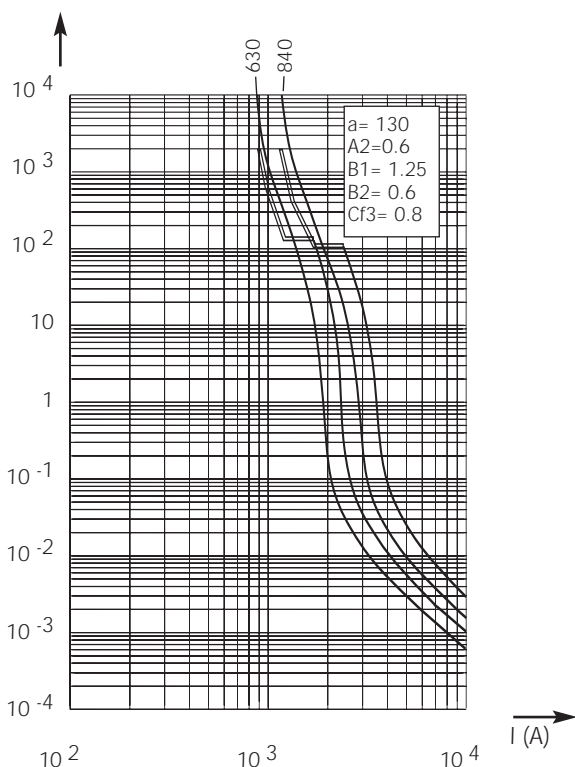
900 V with breaking capacity of 100 kA

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above, left and right: These curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.

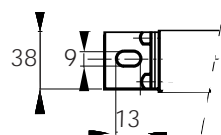
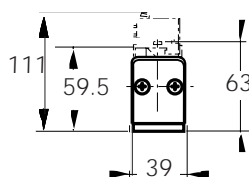
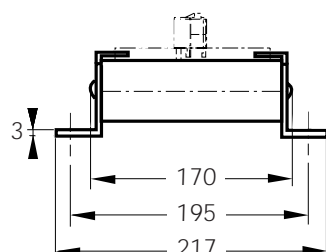


DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC



Size 120
SRC from 20 to 215 A

Dimensions



Weight : 900 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 1600 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
120	20	@ 2000 V = 100 kA L/R = 15 ms	8	16	180	310	CC 20 SRC 120 QF 0020	J079450	D120SC20C20QF
	25		12.5	25	180	310	CC 20 SRC 120 QF 0025	K079451	D120SC20C25QF
	32		14.5	29.5	350	610	CC 20 SRC 120 QF 0032	L079452	D120SC20C32QF
	40		17.5	36	580	1000	CC 20 SRC 120 QF 0040	M079453	D120SC20C40QF
	50		20.5	42	1030	1800	CC 20 SRC 120 QF 0050	N079454	D120SC20C50QF
	63		26	53.5	1600	2800	CC 20 SRC 120 QF 0063	P079455	D120SC20C63QF
	80		30	61.5	3100	5400	CC 20 SRC 120 QF 0080	Q079456	D120SC20C80QF
	100		35	70.5	5800	10000	CC 20 SRC 120 QF 0100	R079457	D120SC20C100QF
	125		43	87.5	9200	16000	CC 20 SRC 120 QF 0125	S079458	D120SC20C125QF
	160		49	99	19200	33200	CC 20 SRC 120 QF 0160	T079459	D120SC20C160QF
	200		49.5	101	45000	78500	CC 20 SRC 120 QF 0200	V079460	D120SC20C200QF
	215		52	106	55000	95000	CC 20 SRC 120 QF 0215	W079461	D120SC20C215QF

Microswitch: MCR 3E 1-5N BS Ref. Number : G310023

Pack: 1 piece



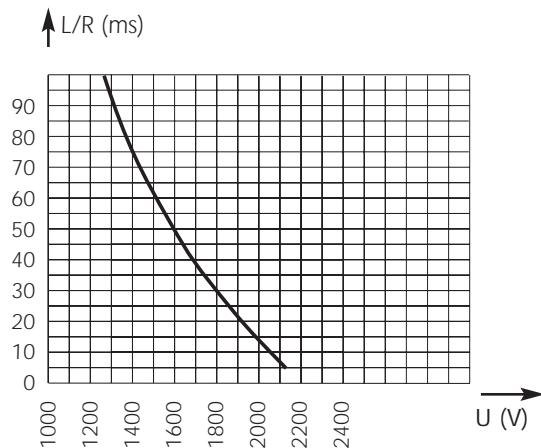
DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC



Size 120
SRC from 20 to 215 A

Electrical characteristics

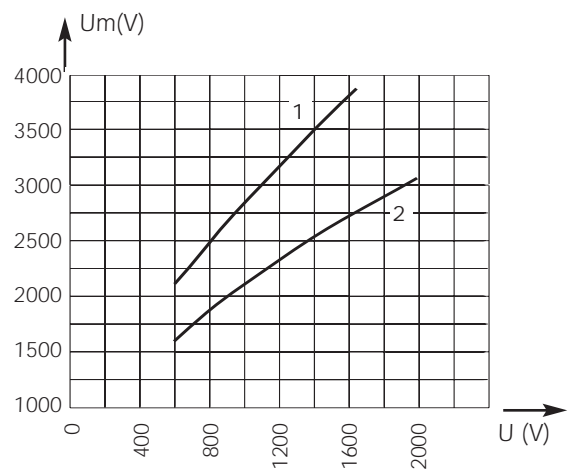
DC applications data



Above: Curve indicates the maximum permissible value of time constant L/R as a function of the DC working voltage

Max. AC voltage (50/60 Hz):
1500 V with breaking capacity of 100 kA

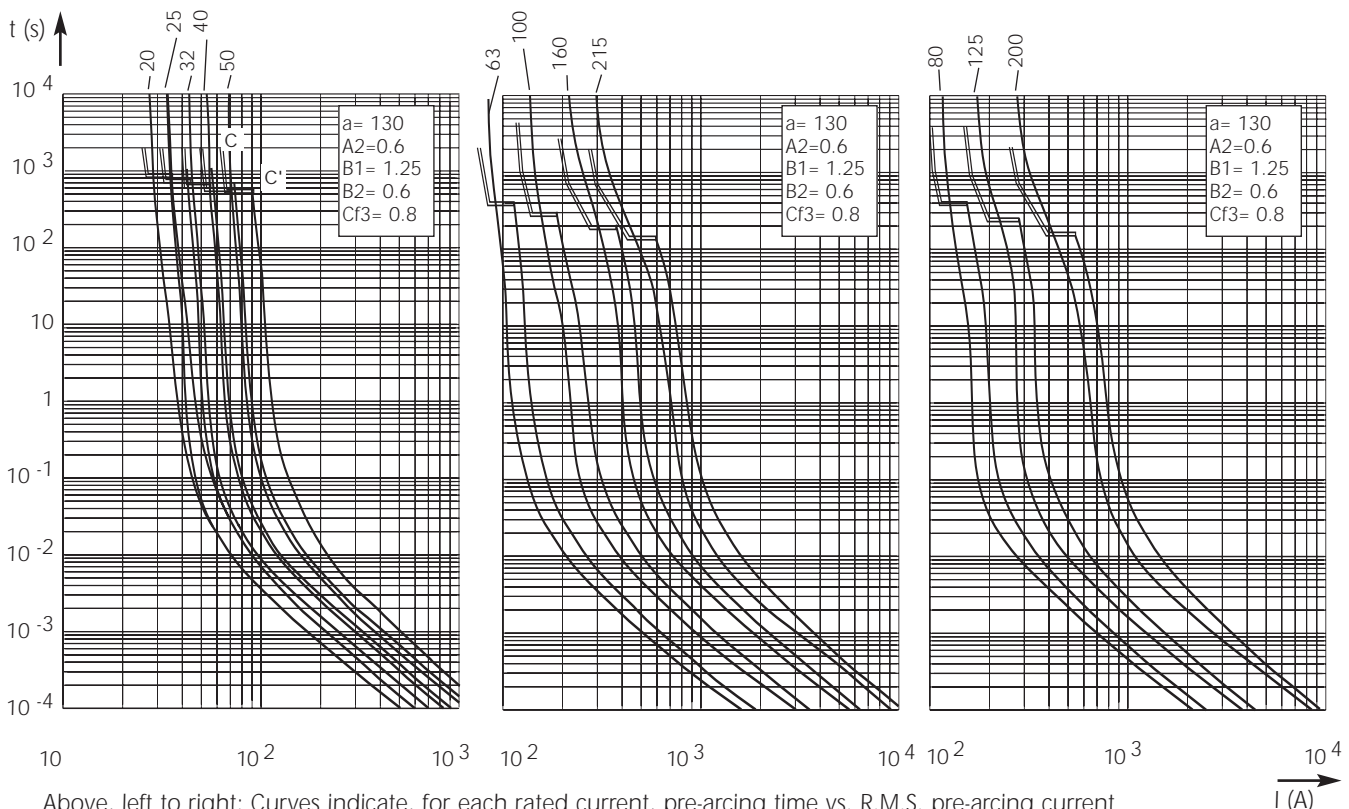
Peak arc voltage vs. working voltage



1 : $L/R = 45$ ms
2 : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above, left to right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

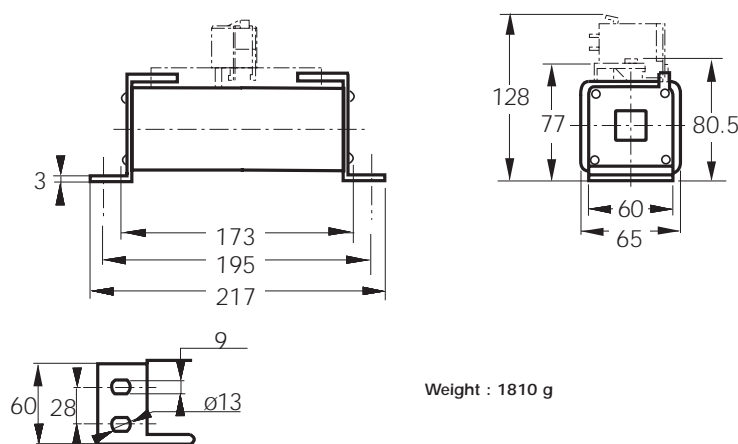


DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC



Size 122
SRD from 160 to 400 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking capacity	Watts loss		Max. I^2t @ 1600 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
122		@ 1800 V DC							
	60	100 kA	52.5	100	15000	25000	CC 20 SRD 122 QF 0160	D076639	D122SD20C160QF
	200	L/R = 30 ms	61.5	118	26000	44000	CC 20 SRD 122 QF 0200	X079462	D122SD20C200QF
	250	@ 2000 V	69	131	50000	87000	CC 20 SRD 122 QF 0250	Y079463	D122SD20C250QF
	315	DC	74	150	117000	200000	CC 20 SRD 122 QF 0315	Z079464	D122SD20C315QF
	400	100k A	87	175	219000	380000	CC 20 SRD 122 QF 0400	A079465	D122SD20C400QF
		L/R = 15 ms							

Microswitch: MCR 3E 1-5N BS Ref. Number : G310023

Pack: 1 piece



DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC

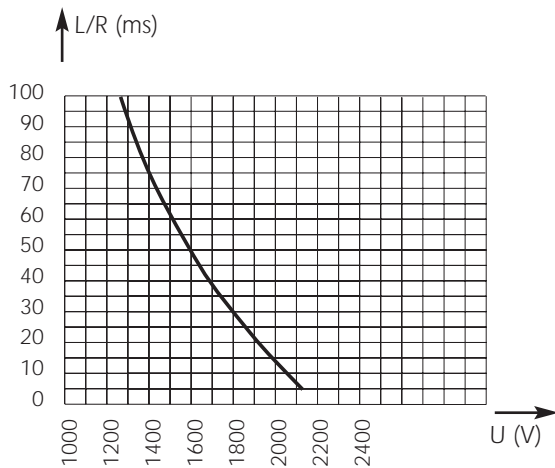


Size 122

SRD from 160 to 400 A

Electrical characteristics

DC applications data

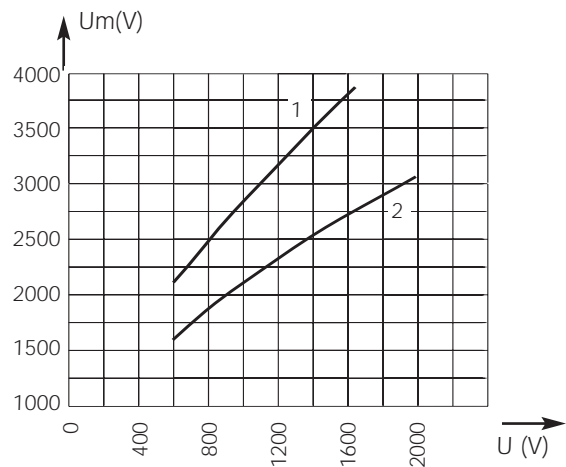


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

1500 V with breaking capacity of 100 kA

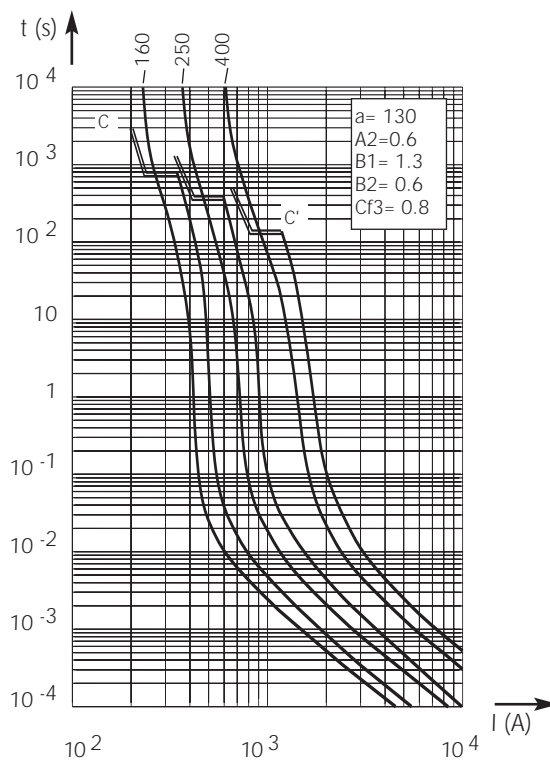
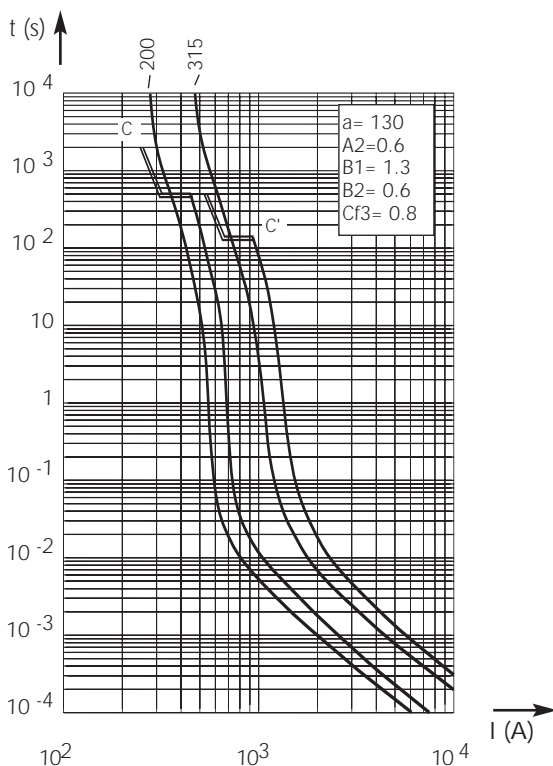
Peak arc voltage vs. working voltage



1 : $L/R = 45$ ms
2 : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



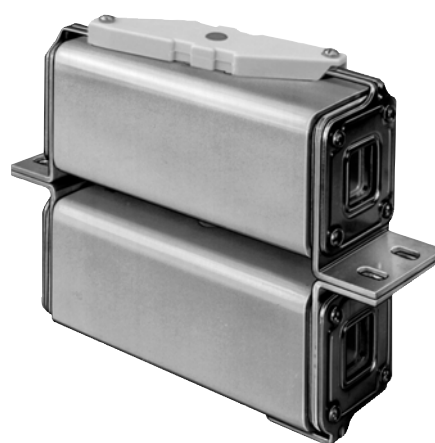
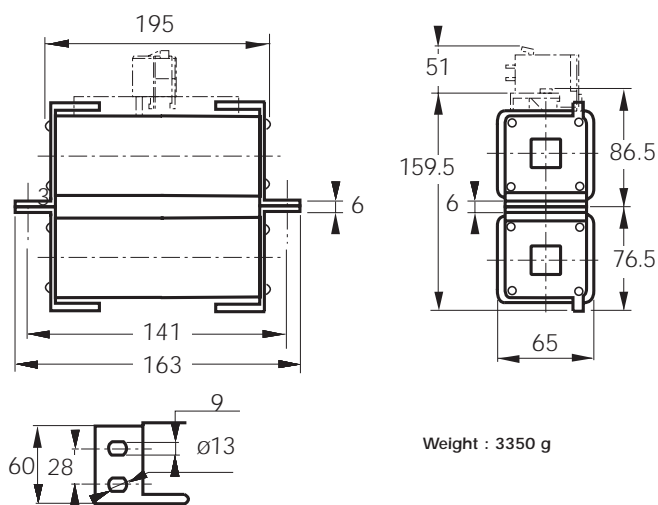
Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC

Size 2x122
SRD from 500 to 800 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking capacity	Watts loss		Max. I^2t @ 1600 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
2x122	500	@ 1800 V DC 100 kA	145	274	200000	348000	CC 20 SRD 2122 QF 500	E076640	D2122SD20C500QF
	630	L/R = 30 ms @ 2000 V DC	155	314	468000	800000	CC 20 SRD 2122 QF 630	F076641	D2122SD20C630QF
	800	100k A L/R = 15 ms	182	367	876000	1.520000	CC 20 SRD 2122 QF 800	V096066	D2122SD20C800QF

Microswitch: MCR 3E 1-5N BS Ref. Number : G310023

Pack: 1 piece



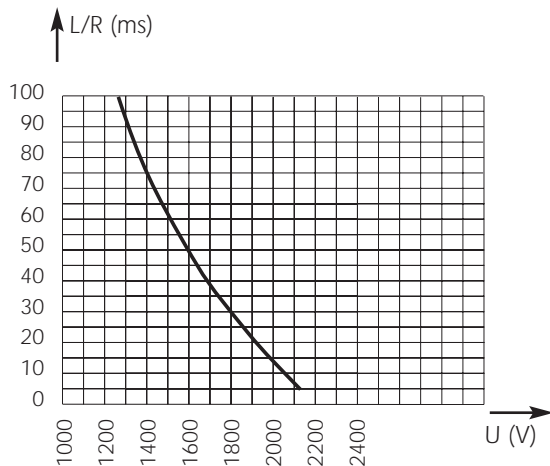
DC Square-body Fuses Sizes 120- 122 - 2x122 SR 2000V DC



Size 2x122
SRD from 500 to 800 A

Electrical characteristics

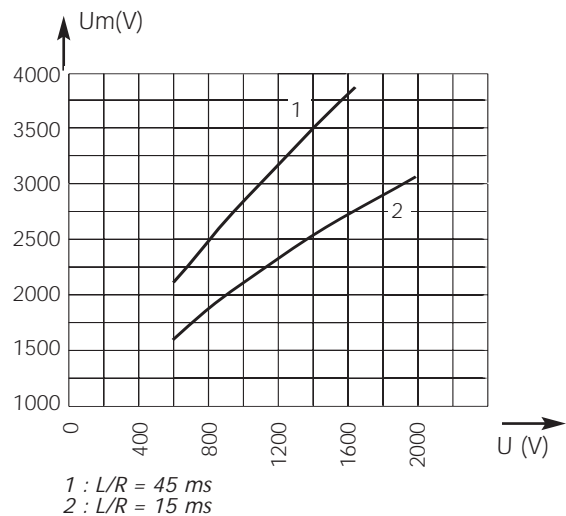
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

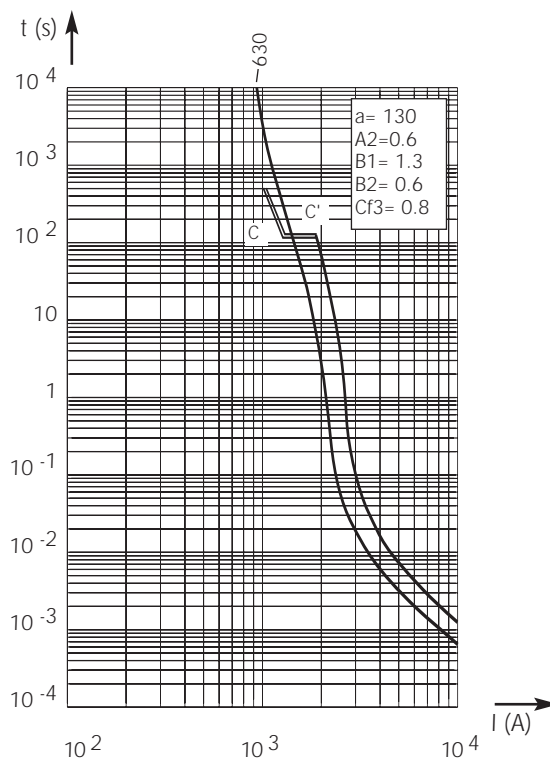
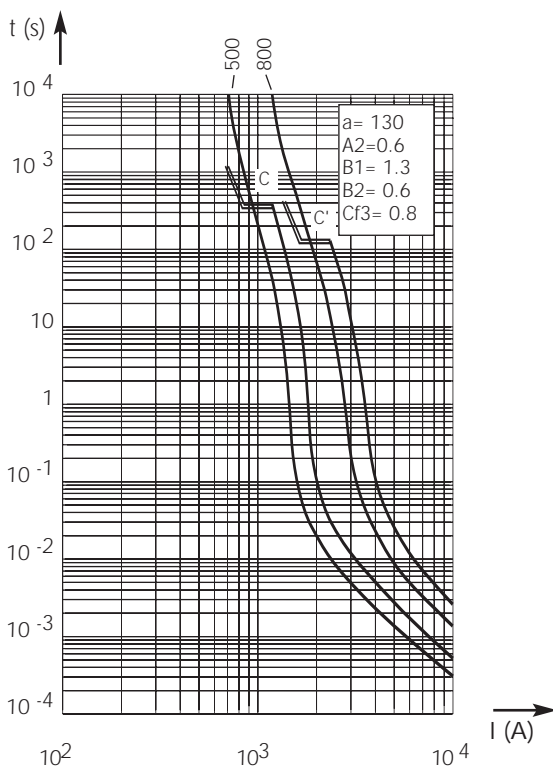
Max. AC voltage (50/60 Hz):
1500 V with breaking capacity of 100 kA

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



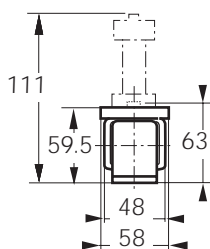
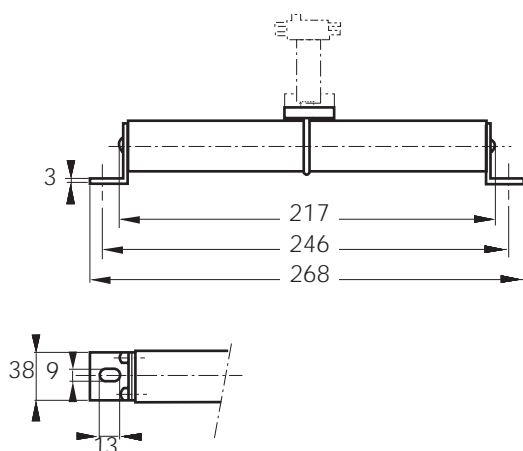
Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 300 - 302 - 2x302 gR Brackets size 300 - 1750 to 2000V DC

gRC-gRE from 6 to 125 A

Dimensions



Weight: 1150 g

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
300	6	@ 1750 V DC 30 kA L/R = 30 ms	3.4	6	CC 17,5 gRC 300 QF 0006	P083733	D300GC17C6QF
	8		4.4	8	CC 17,5 gRC 300 QF 0008	Q083734	D300GC17C8QF
	10		5.8	10.6	CC 17,5 gRC 300 QF 0010	M089435	D300GC17C10QF
	12		6	11	CC 17,5 gRC 300 QF 0012	R087898	D300GC17C12QF
	16		6.7	12	CC 17,5 gRC 300 QF 0016	N089436	D300GC17C16QF
	20	@ 2000 V DC 30 kA L/R = 30 ms	7.9	14	CC 20 gRC 300 QF 0020	R086932	D300GC20C20QF
	25		10	18	CC 20 gRC 300 QF 0025	S086933	D300GC20C25QF
	32		13.5	24	CC 20 gRC 300 QF 0032	T086934	D300GC20C32QF
	40		16	29	CC 20 gRC 300 QF 0040	V086935	D300GC20C40QF
	50		19	34	CC 20 gRC 300 QF 0050	W086936	D300GC20C50QF
	63		23.5	42.5	CC 20 gRC 300 QF 0063	X086937	D300GC20C63QF
	80		28.5	51.5	CC 20 gRC 300 QF 0080	Y086938	D300GC20C80QF
	80	@ 2000 V DC 30 kA L/R = 14 ms	22	40	CC 20 gRE 300 QF 0080	P075752	D300GE20C80QF
	100		28	50	CC 20 gRE 300 QF 0100	Q075753	D300GE20C100QF
	125		30	55	CC 20 gRE 300 QF 0125	R075754	D300GE20C125QF
		@ 1800 V= 100 kA L/R = 20 ms					

Microswitch: MC R 3E 1-5N Ref. Number: G310023

Pack: 1 piece

DC Square-body Fuses

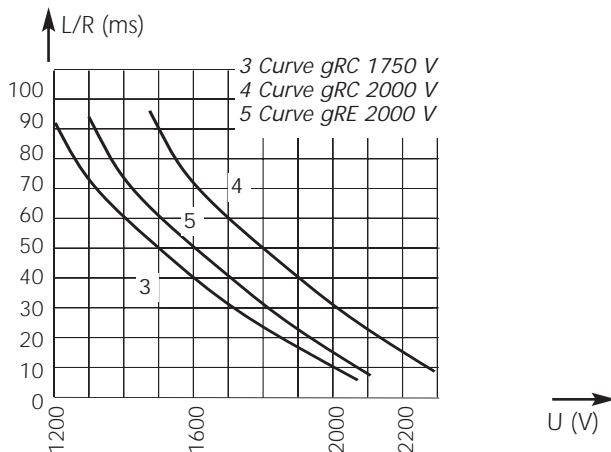
Sizes 300 - 302 - 2x302

gR Brackets size 300 - 1750 to 2000V DC



gRC-gRE from 6 to 125 A

Electrical characteristics DC applications data

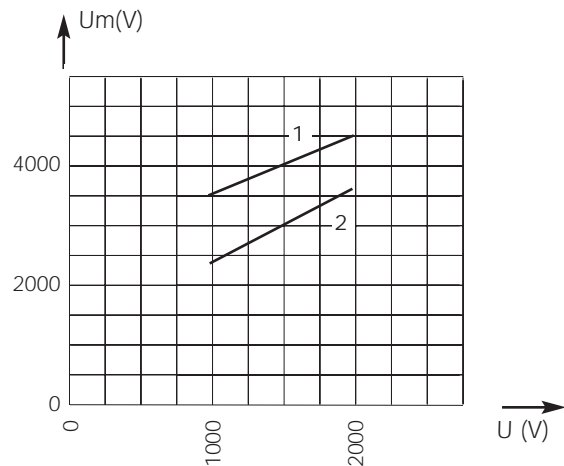


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

1,700 V with breaking capacity of 80 kA

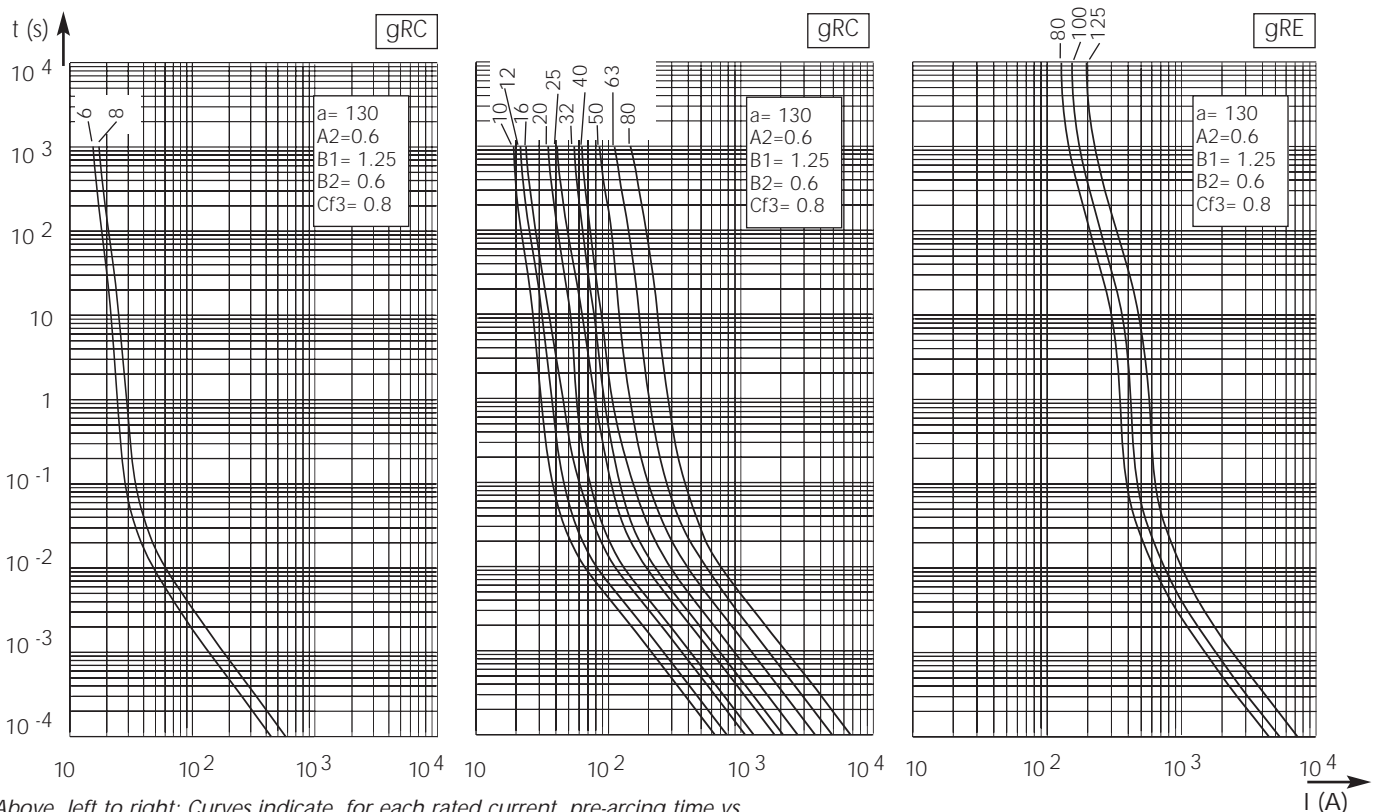
Peak arc voltage vs. working voltage



1 Curve gRC : $L/R = 30$ ms
2 Curve gRE : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above, left to right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

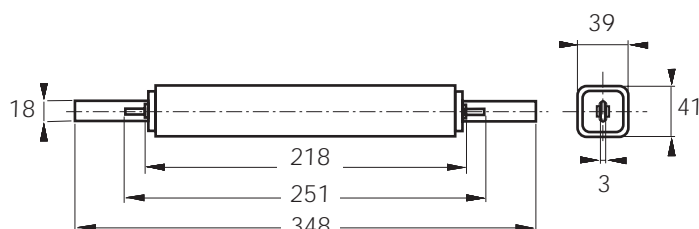
$\pm 10\%$ tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 300 - 302 - 2x302 gR Blades size 300 - 1750 to 2000V DC

Size 300
gRC from 10 to 80 A

Dimensions



Weight: 1050 g

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
300	10	@ 1750 V DC 30 kA L/R = 30 ms	5.8	10.6	CC 17000 CV3 gRC 300PSP 10	Y088870	D 300 GC 17C 10P
	12		6	11	CC 17000 CV3 gRC 300PSP 12	X081026	D 300 GC 17C 12P
	16		6.7	12	CC 17000 CV3 gRC 300PSP 16	L086996	D 300 GC 17C 16P
	20	@ 2000 V DC 30 kA L/R = 30 ms	7.9	14	CC 20000 CV3 gRC 300PSP 20	K086995	D 300 GC 20C 20P
	25		10	18	CC 20000 CV3 gRC 300PSP 25	Q081894	D 300 GC 20C 25P
	32		13.5	24	CC 20000 CV3 gRC 300PSP 32	J086994	D 300 GC 20C 32P
	40		16	29	CC 20000 CV3 gRC 300PSP 40	M086997	D 300 GC 20C 40P
	50		19	34	CC 20000 CV3 gRC 300PSP 50	G086992	D 300 GC 20C 50P
	63		23.5	42.5	CC 20000 CV3 gRC 300PSP 63	F086991	D 300 GC 20C 63P
	80		28.5	51.5	CC 20000 CV3 gRC 300PSP 80	E086990	D 300 GC 20C 80P

Pack: 1 piece

Microswitch MC 2R 3E 1-5N BS Reference number: J310025

DC Square-body Fuses

Sizes 300 - 302 - 2x302

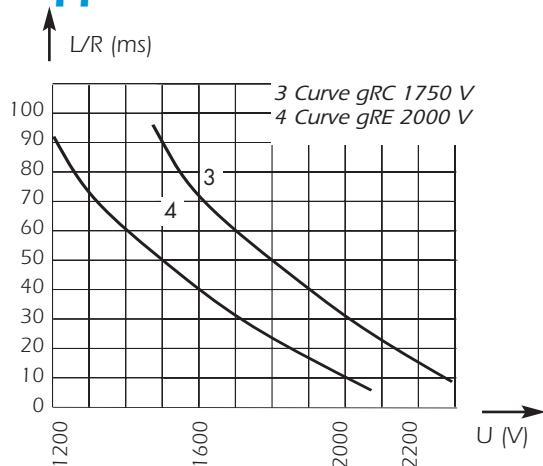
gR Blades size 300 - 1750 to 2000V DC

Size 300

gRC-gRE from 200 to 560 A

Electrical characteristics

DC applications data

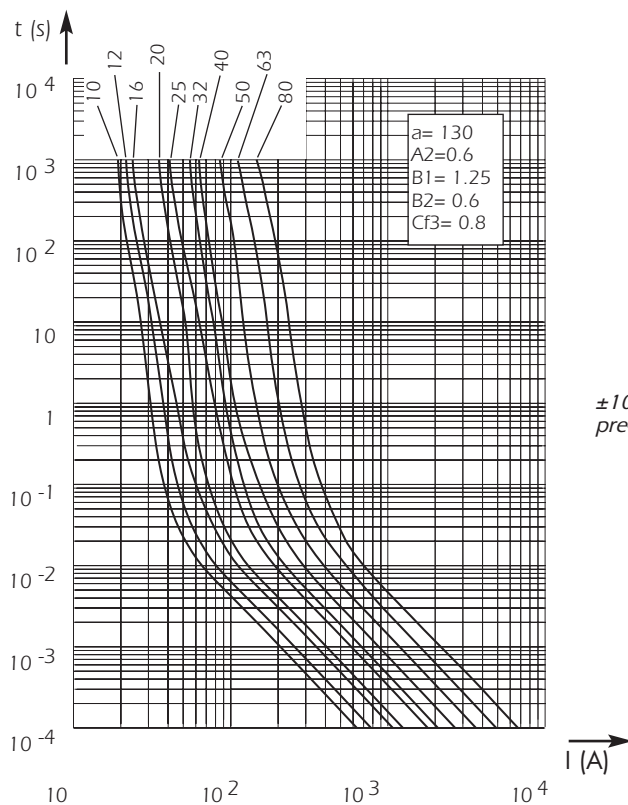


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

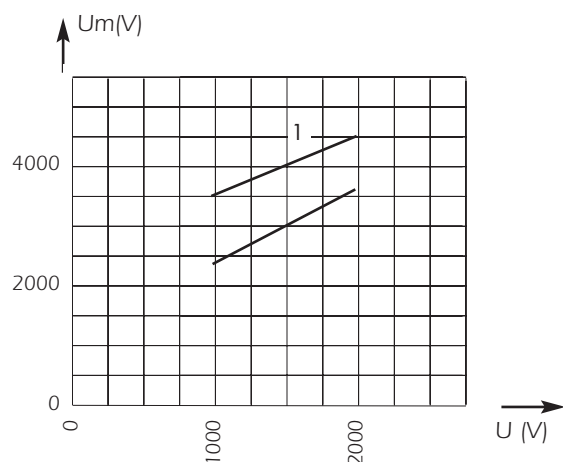
1700 V with breaking capacity of 80 kA

Time vs. current characteristics



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



1 Curve gRC : $L/R = 30$ ms

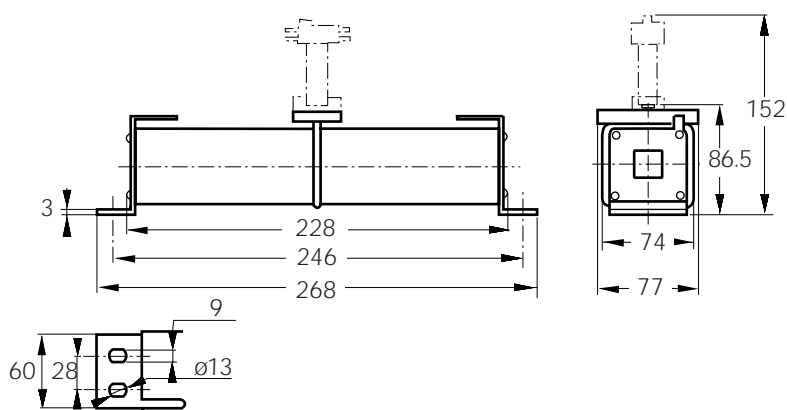
Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

$\pm 10\%$ tolerance for mean pre-arcing current

DC Square-body Fuses Sizes 300 - 302 - 2x302 gR Brackets size 302 - 2000V DC

gRC-gRE from 100 to 280 A

Dimensions



Weight: 2200 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
	100	@ 2000 V DC	30	58.5	CC 20 gRC 302 QF 0100	N086929	D302GC20C100QF
	125	30 kA	37	72	CC 20 gRC 302 QF 0125	P086930	D302GC20C125QF
	160	L/R = 30 ms	47.5	93	CC 20 gRC 302 QF 0160	Q086931	D302GC20C160QF
302	160	@ 2000 V DC	42	70	CC 20 gRE 302 QF 0160	S075755	D302GE20C160QF
	200	30 kA	48	80	CC 20 gRE 302 QF 0200	T075756	D302GE20C200QF
	250	L/R = 14 ms	57	95	CC 20 gRE 302 QF 0250	V075757	D302GE20C250QF
	280	@ 1800 V DC	60	100	CC 20 gRE 302 QF 0280	W075758	D302GE20C280QF
		100 kA L/R = 20 ms					

Microswitch MC 2R 3E 1-5N BS Reference number: J310025

Protistor DC fuses

DC Square-body Fuses

Sizes 300 - 302 - 2x302

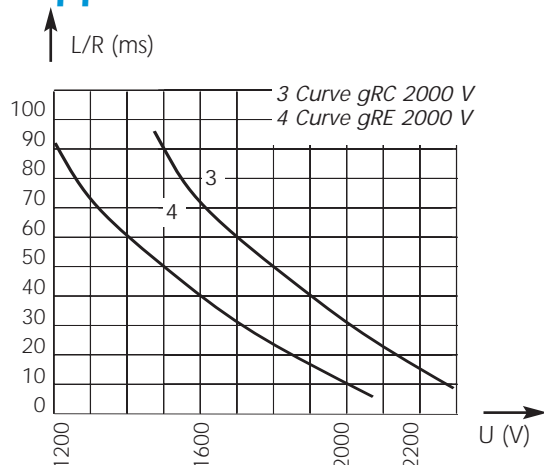
gR Brackets size 302 - 2000V DC



gRC-gRE from 100 to 280 A

Electrical characteristics

DC applications data

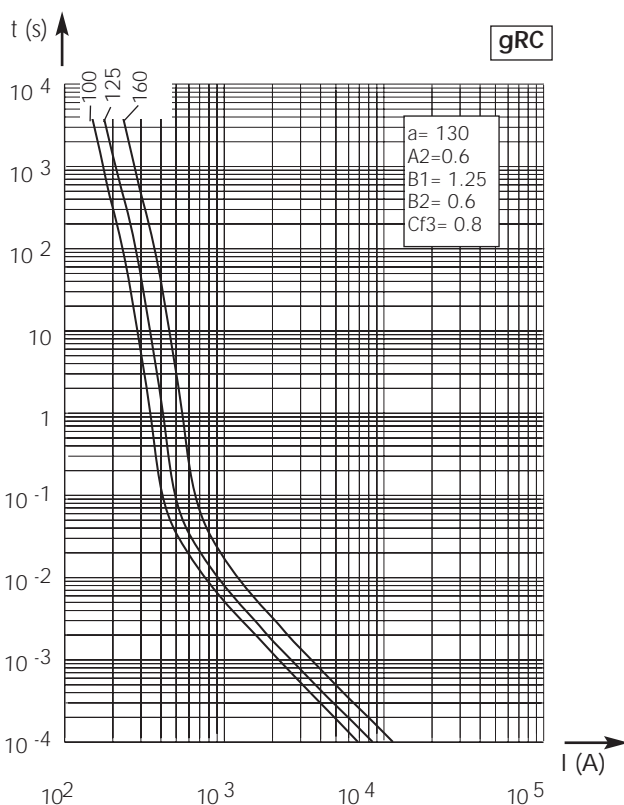


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

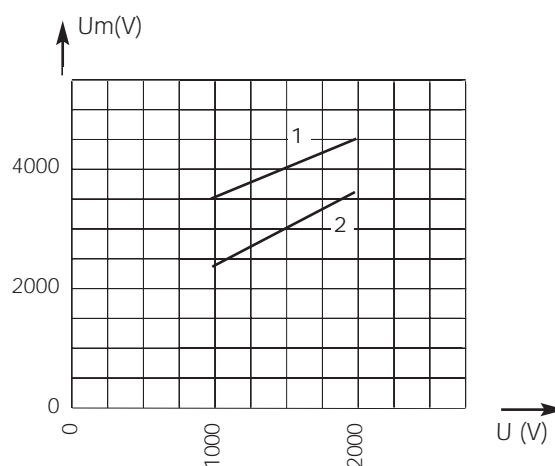
1700 V with breaking capacity of 80 kA

Time vs. current characteristics



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

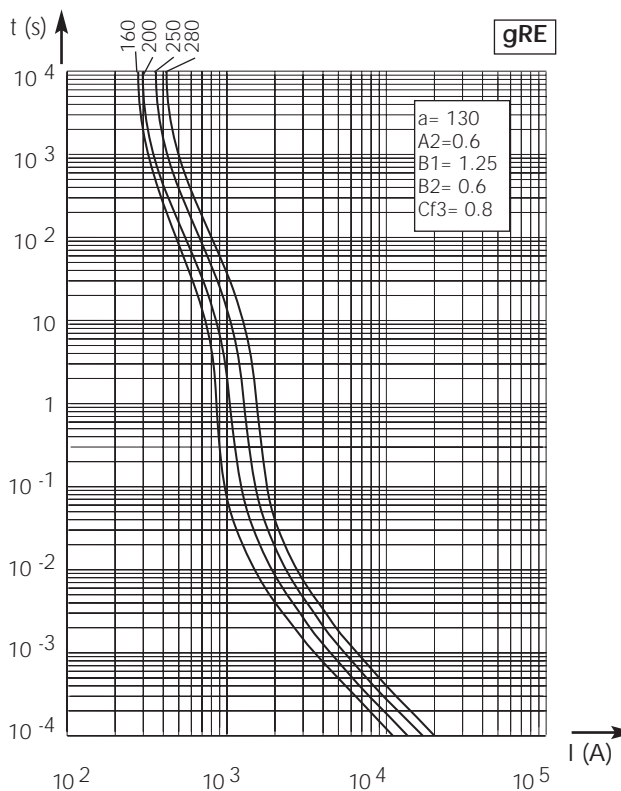
Peak arc voltage vs. working voltage



1 Curve gRC : $L/R = 30$ ms

2 Curve gRE : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage

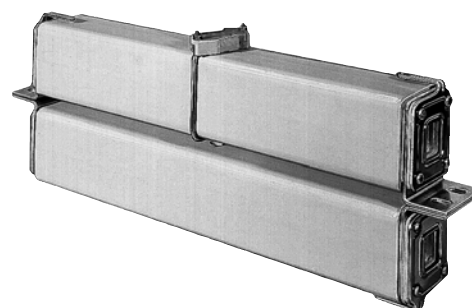
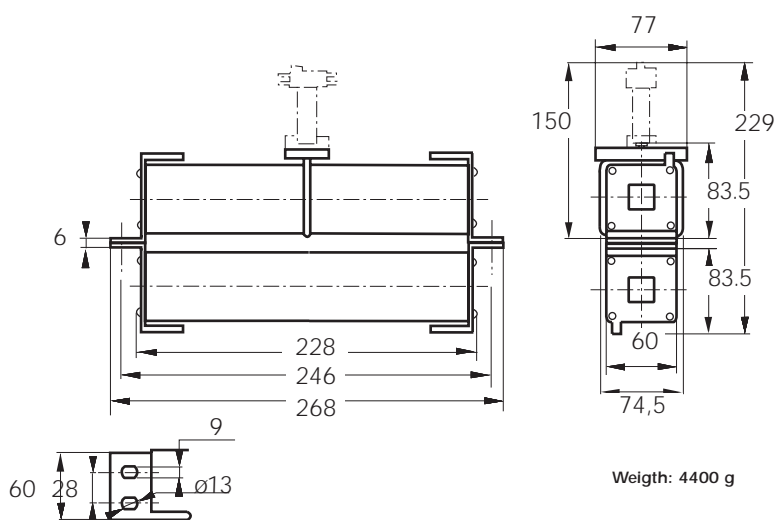


$\pm 10\%$ tolerance for mean pre-arcing current

DC Square-body Fuses Sizes 300 - 302 - 2x302 gR Blades size 2x302 - 2000V DC

gRC-gRE from 200 to 560 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)			
2x302	200	@ 2000 V DC 30 kA	60	117	CC 20 gRC 2302 QF 200	B079903	D2302GC20C200QF
	250	L/R = 30 ms	74	144	CC 20 gRC 2302 QF 250	C079904	D2302GC20C250QF
	315	@ 2000 V DC 30 kA	84	140	CC 20 gRE 2302 QF 315	X075759	D2302GE20C315QF
	400	L/R = 14 ms	96	160	CC 20 gRE 2302 QF 400	Y075760	D2302GE20C400QF
	500		115	190	CC 20 gRE 2302 QF 500	Z075761	D2302GE20C500QF
	560	@ 1800 V DC 100 kA	120	200	CC 20 gRE 2302 QF 560	A075762	D2302GE20C560QF
		L/R = 20 ms					

Pack: 1 piece

Microswitch MC 2R 3E 1-5N BS Reference number: J310025

Protistor DC fuses

DC Square-body Fuses

Sizes 300 - 302 - 2x302

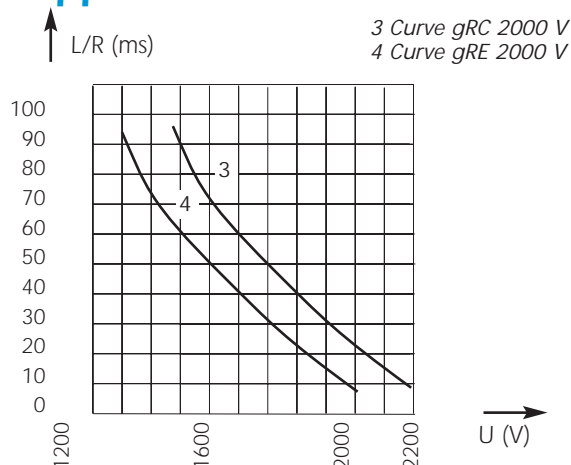
gR Blades size 2x302 - 2000V DC



gRC-gRE from 200 to 560 A

Electrical characteristics

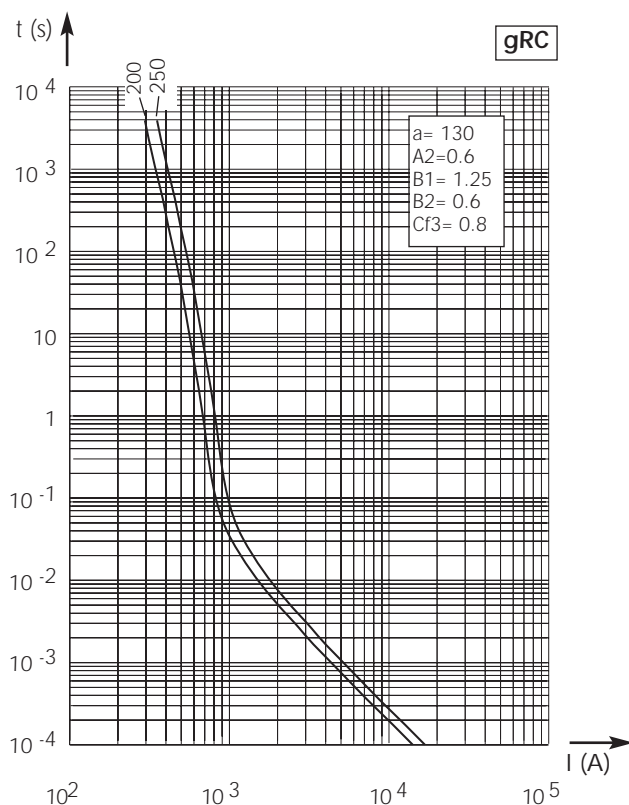
DC applications data



Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

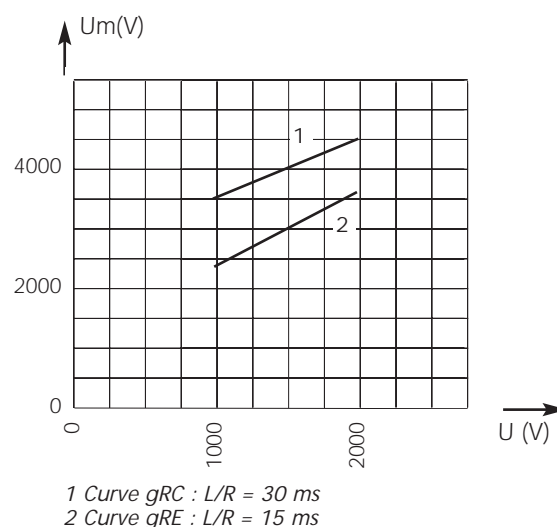
Max. AC voltage (50/60 Hz):
1700 V with breaking capacity of 80 kA

Time vs. current characteristics

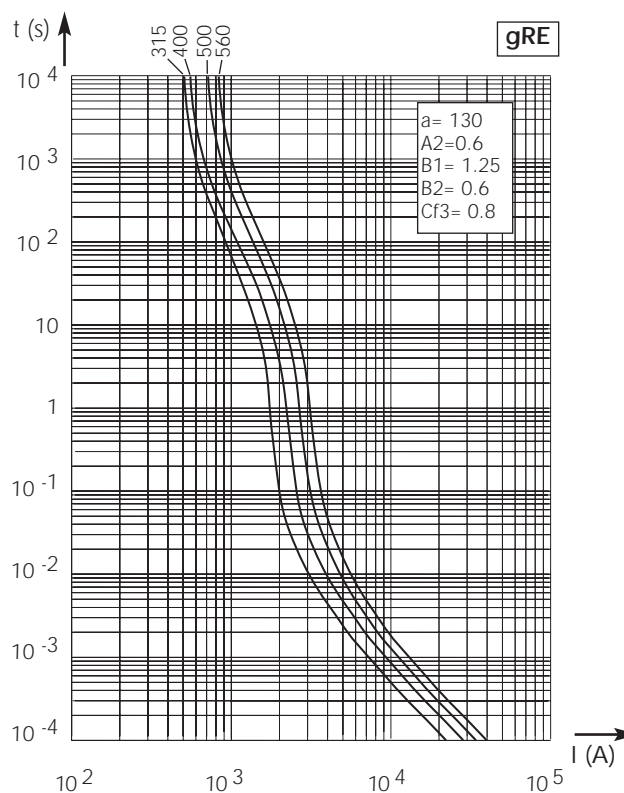


Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across the fuse terminals, vs. DC working voltage



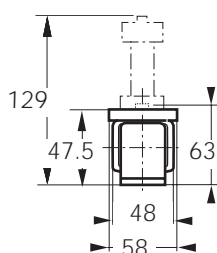
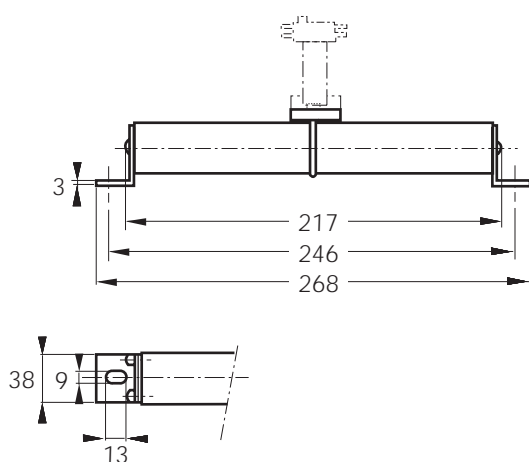
$\pm 10\%$ tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 300 - 302 - 2x302 SR Brackets size 300 - 2400V DC

SRE from 20 to 180 A

Dimensions



Weight: 1150 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 2000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
300	20	@ 2400 V DC 100 kA L/R = 15 ms	18	36	150	260	CC 24 SRE 300 QF 0020	X075299	D300SE24C20QF
	25		21	42	260	460	CC 24 SRE 300 QF 0025	W075298	D300SE24C25QF
	32		22	43	310	540	CC 24 SRE 300 QF 0032	G079471	D300SE24C32QF
	40		26	51	530	920	CC 24 SRE 300 QF 0040	H079472	D300SE24C40QF
	50		32	62	750	1300	CC 24 SRE 300 QF 0050	J079473	D300SE24C50QF
	63		35	69	1650	2900	CC 24 SRE 300 QF 0063	K079474	D300SE24C63QF
	80	@ 2000 V DC 100 kA L/R = 45 ms	38	75	3700	6500	CC 24 SRE 300 QF 0080	L079475	D300SE24C80QF
	100		41	80	8000	14000	CC 24 SRE 300 QF 0100	M079476	D300SE24C100QF
	125		49	95	14000	25000	CC 24 SRE 300 QF 0125	N079477	D300SE24C125QF
	160		50	96	34000	60000	CC 24 SRE 300 QF 0160	P079478	D300SE24C160QF
	180		51	98	57000	100000	CC 24 SRE 300 QF 0180	Q079479	D300SE24C180QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5N BS Ref. Number: J310025

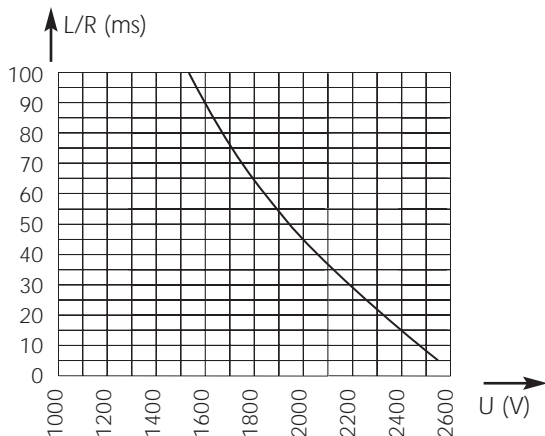


DC Square-body Fuses Sizes 300 - 302 - 2x302 SR Brackets size 300 - 2400V DC



SRE from 20 to 180 A

Electrical characteristics DC applications data

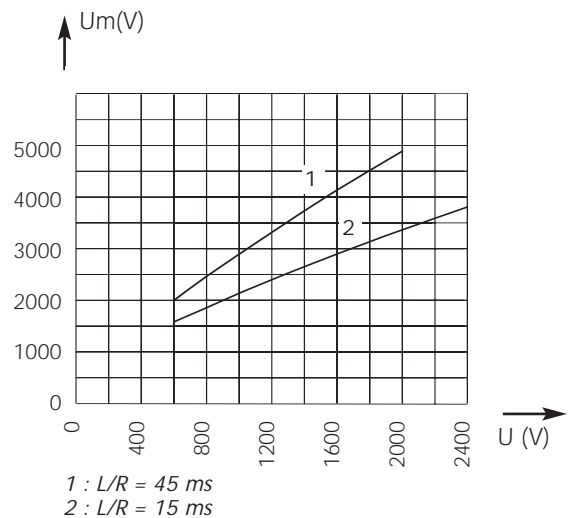


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
2000 V with breaking capacity of 80 kA

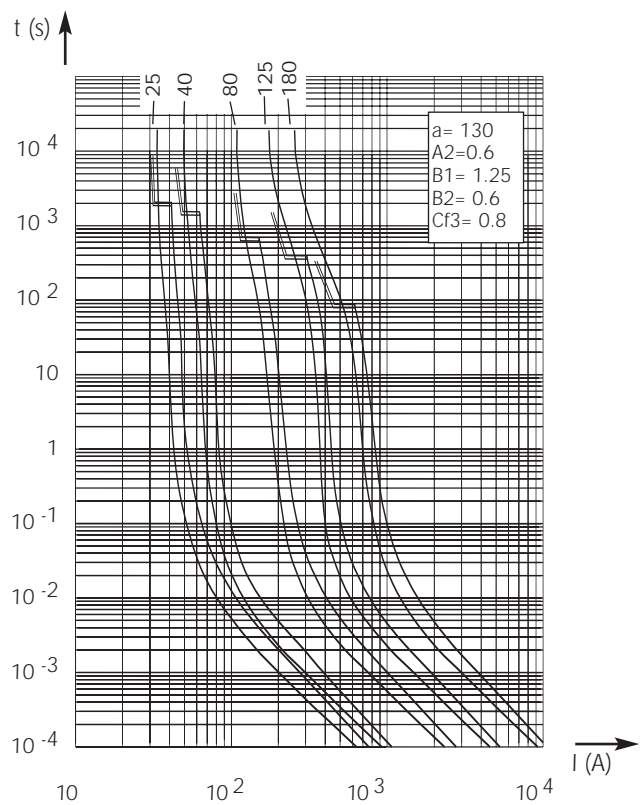
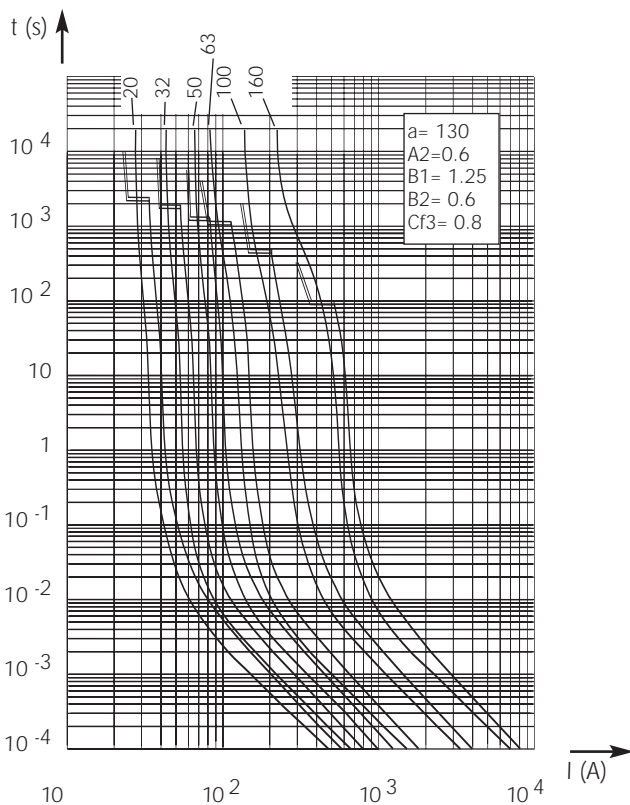
Time vs. current characteristics

Peak arc voltage vs. working voltage



1 : $L/R = 45$ ms
2 : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



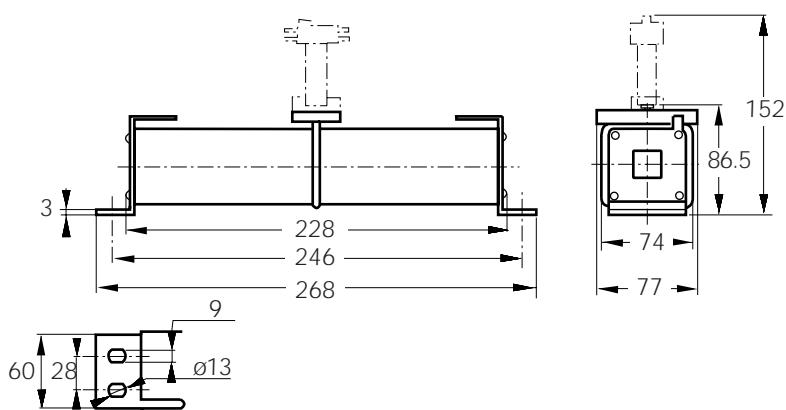
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 300 - 302 - 2x302 SR Brackets size 302 - 2400V DC

SRD - SRF from 160 to 400 A

Dimensions



Weight: 1830 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 2000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
302	160	@ 2400 V DC	71	142	18,500	32,000	CC 24 SRD 302 QF 0160	J 076644	D302SD24C160QF
	200	100 kA	76	149	38,000	66,000	CC 24 SRD 302 QF 0200	R079480	D302SD24C200QF
	250	L/R = 15 ms	90	179	68,000	120,000	CC 24 SRD 302 QF 0250	S079481	D302SD24C250QF
	315		94	186	150,000	250,000	CC 24 SRD 302 QF 0315	T079482	D302SD24C315QF
	350	@ 2000 V DC	95	187	230,000	400,000	CC 24 SRD 302 QF 0350	V079483	D302SD24C350QF
	400	100 kA	96	188	195,000	325,000	CC 24 SRF 302 QF 0400	V075297	D302SF24C400QF
		L/R = 45 ms							

Microswitch MC 2R 3E 1-5N BS Ref. Number: J310025

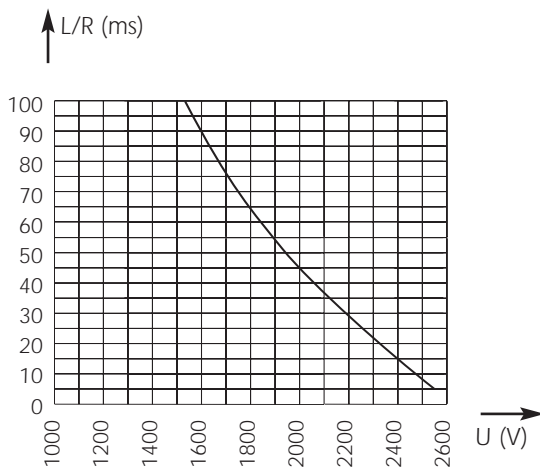
Pack: 1 piece

DC Square-body Fuses Sizes 300 - 302 - 2x302 SR Brackets size 302 - 2400V DC

SRD - SRF from 160 to 400 A

Electrical characteristics

DC applications data

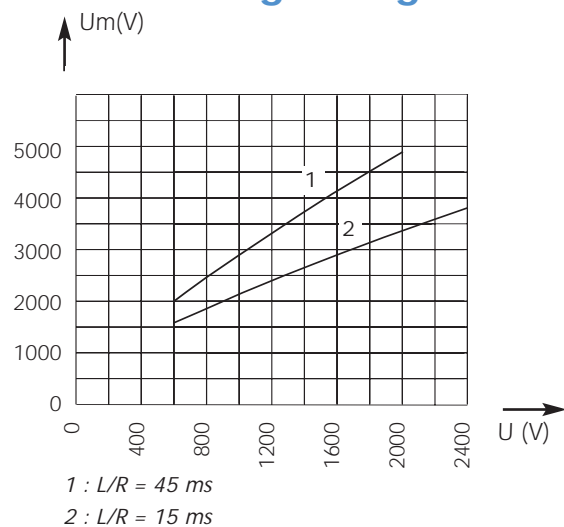


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

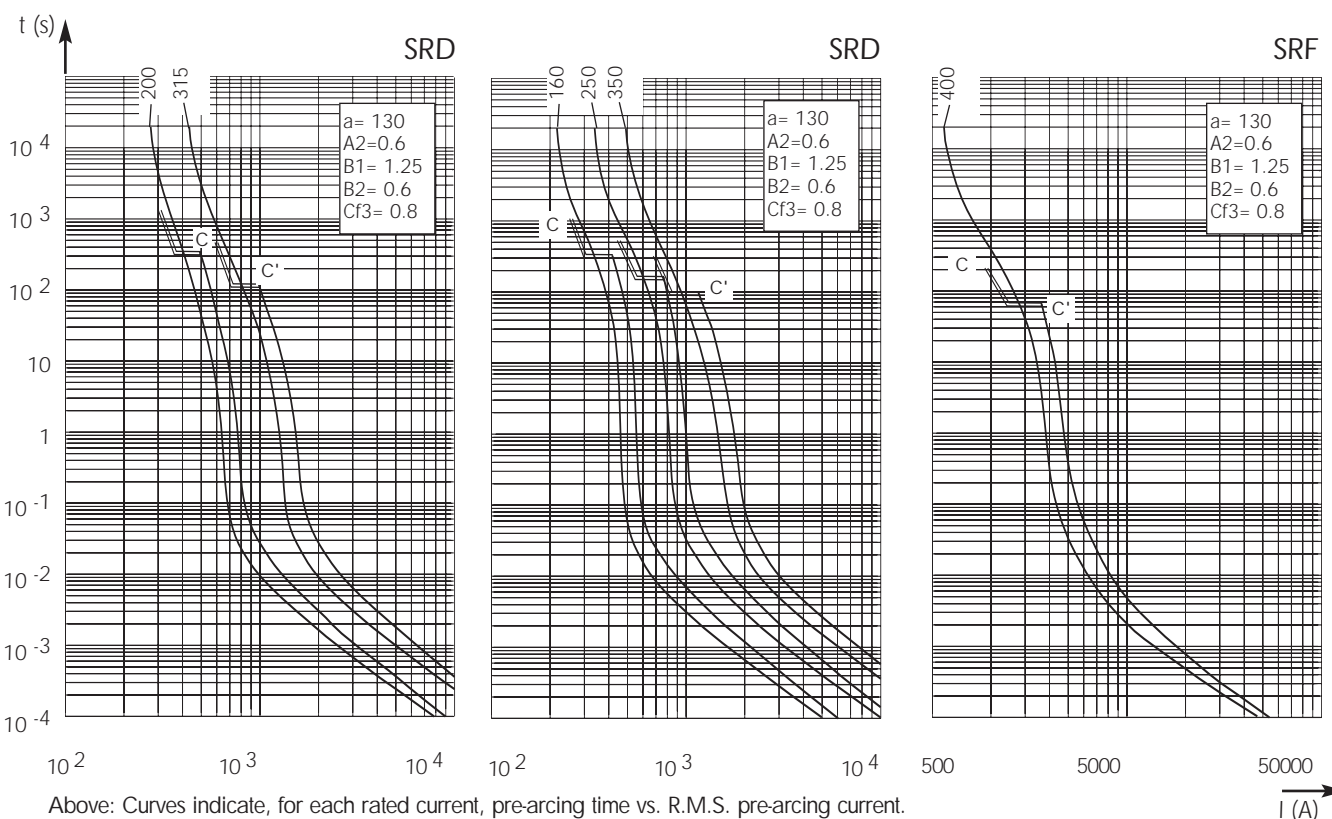
Max. AC voltage (50/60 Hz):
2000 V with breaking capacity of 80 kA

Time vs. current characteristics

Peak arc voltage vs. working voltage



Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



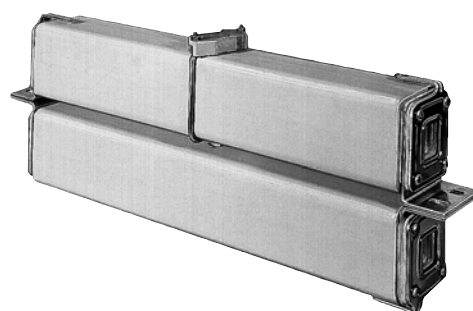
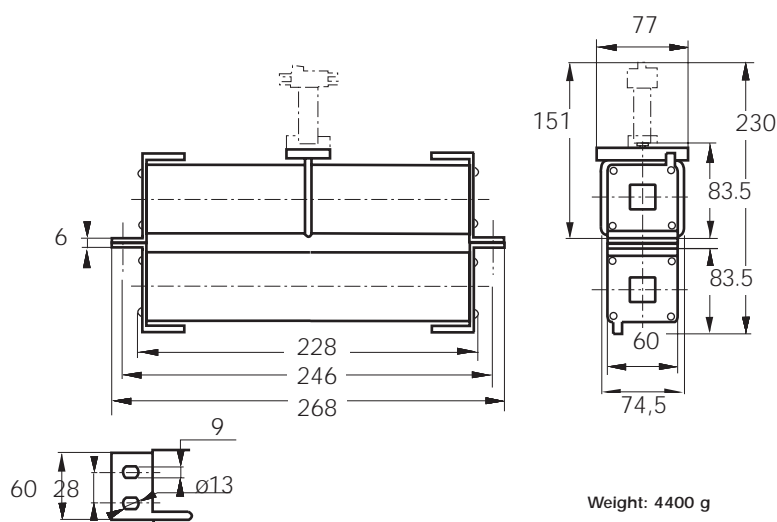
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 300 - 302 - 2x302 SR size 2x302 - 2400V DC

SRD - SRF from 400 to 800 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 2000 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
2x302	400	@ 2400 V DC	160	313	155,000	265,000	CC 24 SRD 2302 QF 400	K084925	D2302SD24C400QF
	500	100 kA	189	376	275,000	480,000	CC 24 SRD 2302 QF 500	L084926	D2302SD24C500QF
	630	L/R = 15 ms	197	390	600,000	10 ⁶	CC 24 SRD 2302 QF 630	M084927	D2302SD24C630QF
	700	@ 2000 V DC	200	393	920,000	1.6 10 ⁶	CC 24 SRD 2302 QF 700	N084928	D2302SD24C700QF
	800	100 kA L/R = 45 ms	205	395	780,000	1.3 10 ⁶	CC 24 SRF 2302 QF 800	T075296	D2302SF24C800QF

Microswitch MC 2R 3E 1-5N BS Ref. Number: J310025

Pack: 1 piece



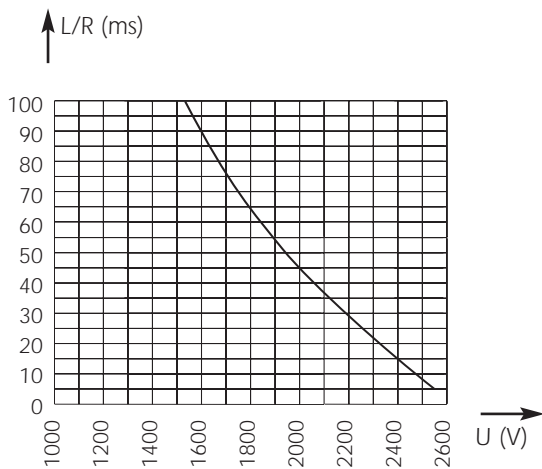
DC Square-body Fuses Sizes 300 - 302 - 2x302 SR size 2x302 - 2400V DC



SRD - SRF from 400 to 800 A

Electrical characteristics

DC applications data

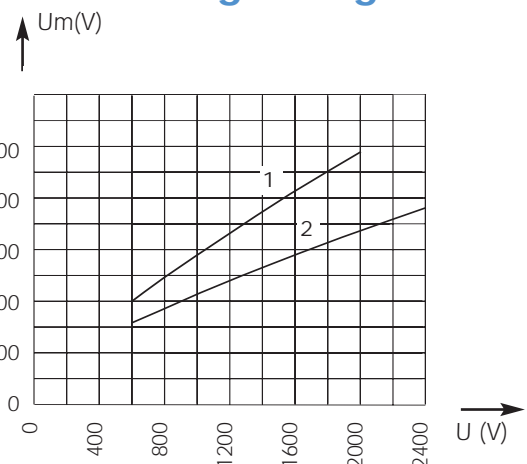


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
2000 V with breaking capacity of 80 kA

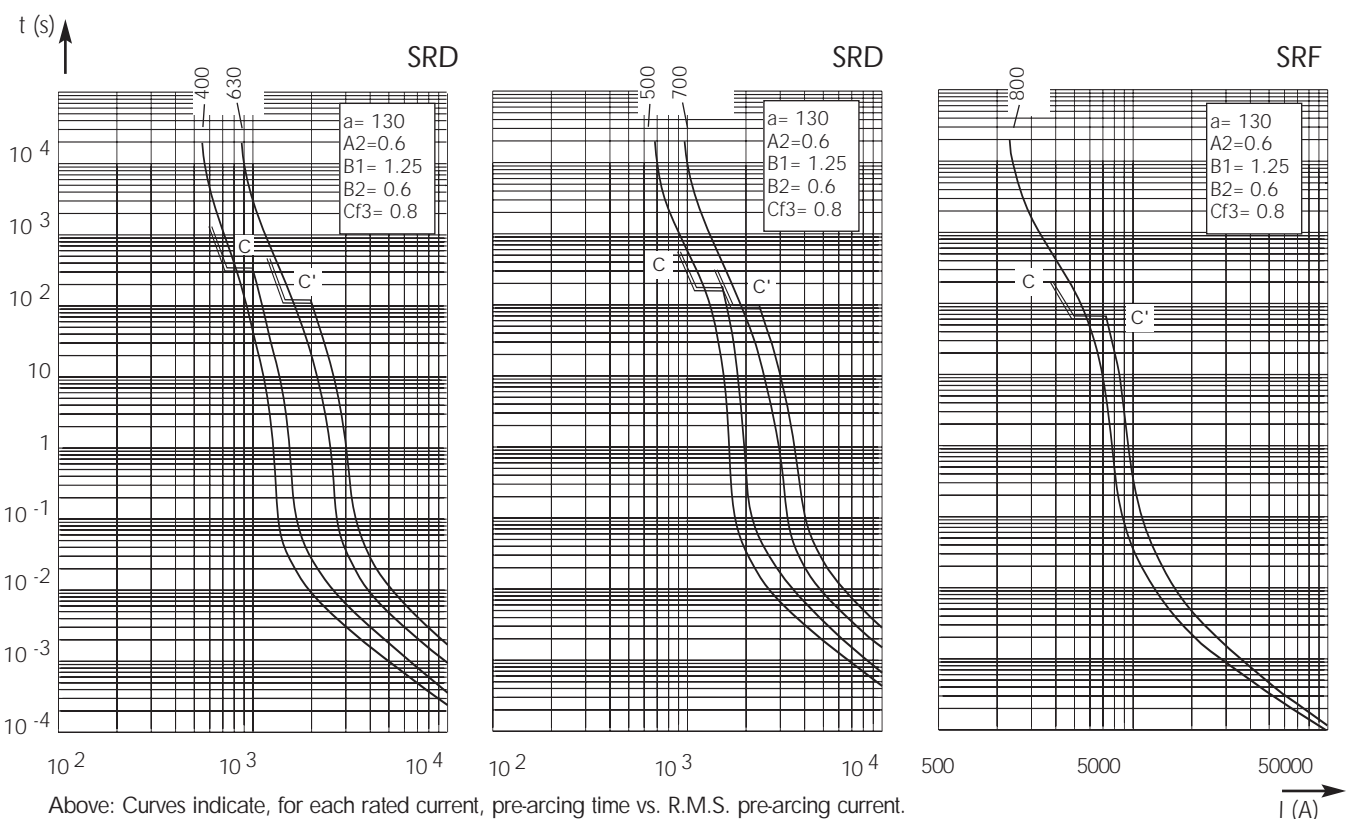
Time vs. current characteristics

Peak arc voltage vs. working voltage



1 : $L/R = 45$ ms
2 : $L/R = 15$ ms

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



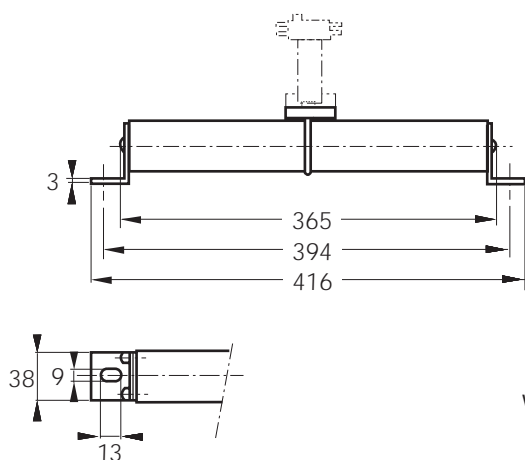
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current.



DC Square-body Fuses Sizes 600 - 602 - 2x602 gR Brackets size 600 - 3500 to 4000 V DC

gRB-gRD from 6 to 125 A

Dimensions



Weight: 1920 g



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
600	6	@ 3500 V DC 30 kA L/R = 30 ms	5.3	9.5	CC 35 gRB 600 QF 0006	S083736	D600GB35C6QF
	8		7	12.7	CC 35 gRB 600 QF 0008	R083735	D600GB35C8QF
	10		10.2	18.5	CC 35 gRB 600 QF 0010	N089390	D600GB35C10QF
	12		11	20	CC 35 gRB 600 QF 0012	V082220	D600GB35C12QF
	16		13.1	24	CC 35 gRB 600 QF 0016	P089391	D600GB35C16QF
	20		14	25.4	CC 35 gRB 600 QF 0020	Q089392	D600GB35C20QF
	25		18	32.5	CC 35 gRB 600 QF 0025	R089393	D600GB35C25QF
	32	@ 4000 V DC 30 kA L/R = 30 ms	25.5	46	CC 40 gRB 600 QF 0032	A086963	D600GB40C32QF
	40		35	63	CC 40 gRB 600 QF 0040	B086964	D600GB40C40QF
	50		29	52	CC 40 gRB 600 QF 0050	C086965	D600GB40C50QF
	63		42	76.5	CC 40 gRB 600 QF 0063	D086966	D600GB40C63QF
	80		51	92	CC 40 gRB 600 QF 0080	E086967	D600GB40C80QF
	80	@ 4000 V DC 30 kA L/R = 15 ms	39	67	CC 40 gRD 600 QF 0080	B075763	D600GD40C80QF
	100		50.5	88	CC 40 gRD 600 QF 0100	C075764	D600GD40C100QF
	125		63	110	CC 40 gRD 600 QF 0125	D075765	D600GD40C125QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025



DC Square-body Fuses

Sizes 600 - 602 - 2x602

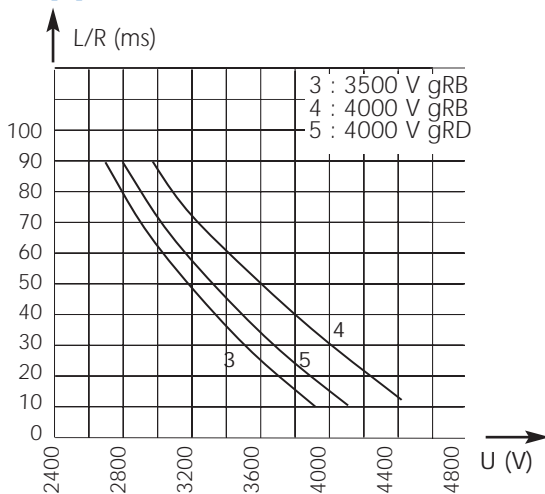
gR Brackets size 600 - 3500 to 4000 V DC



gRB-gRD from 6 to 125 A

Electrical characteristics

DC applications data

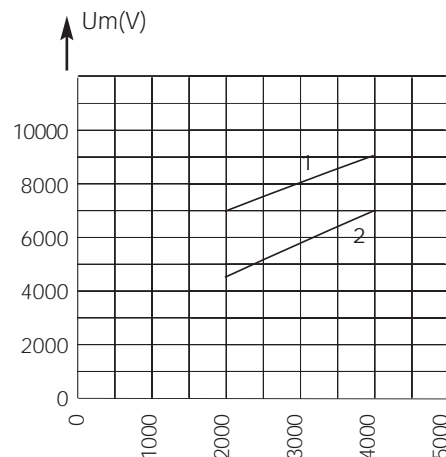


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

3600 V with breaking capacity of 30 kA

Peak arc voltage vs. working voltage

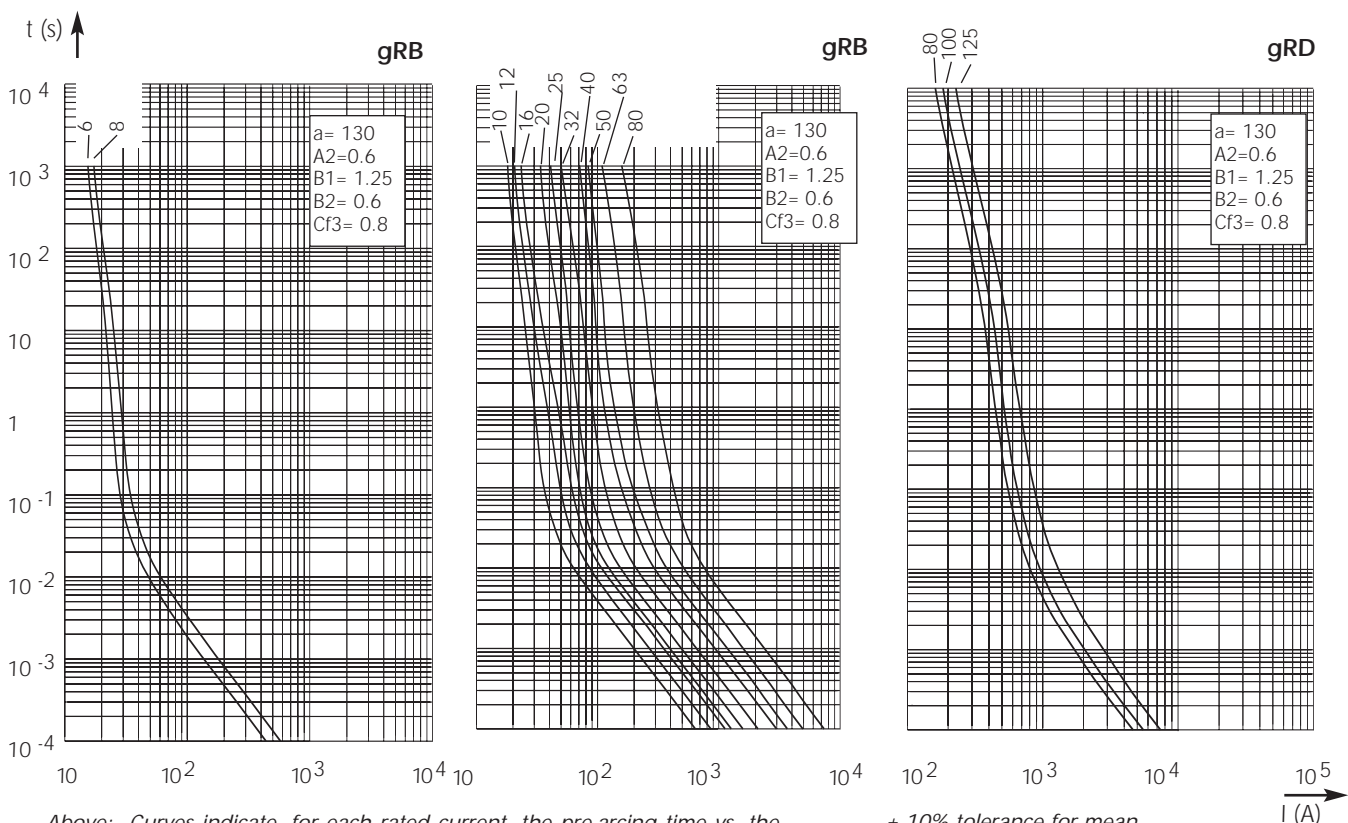


1: $L/R = 30 \text{ ms}$ -3500-4000 V gRB

2: $L/R = 15 \text{ ms}$ 4000 V gRD

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



Above: Curves indicate, for each rated current, the pre-arcing time vs. the R.M.S. pre-arcing current.

$\pm 10\%$ tolerance for mean pre-arcing current

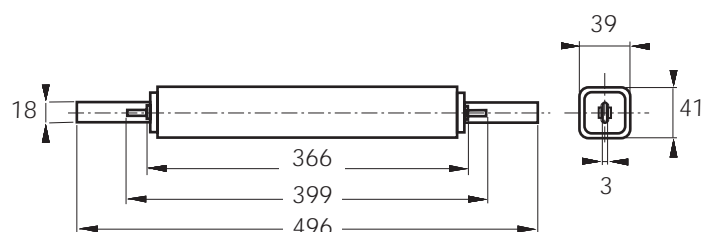


DC Square-body Fuses Sizes 600 - 602 - 2x602 gR Blades size 600 - 3500 to 4000 V DC



gRB from 10 to 80 A

Dimensions



Weight: 1424 g

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
600	10	@ 3500 V DC 30 kA L/R = 30 ms	10.2	18.5	CC 35000 CV3 gRB 600 PSP 10	K088145	D 600 GB 35 C10 P
	12		11	20	CC 35000 CV3 gRB 600 PSP 12	T081023	D 600 GB 35 C12 P
	16		13.1	24	CC 35000 CV3 gRB 600 PSP 16	D086989	D 600 GB 35 C16 P
	20		14	25.4	CC 35000 CV3 gRB 600 PSP 20	N087481	D 600 GB 35 C20 P
	25		18	32.5	CC 35000 CV3 gRB 600 PSP 25	E086783	D 600 GB 35 C25 P
	32	@ 4000 V DC 30 kA L/R = 30 ms	25.5	46	CC 40000 CV3 gRB 600 PSP 32	A086986	D 600 GB 40 C32 P
	40		35	63	CC 40000 CV3 gRB 600 PSP 40	Z086985	D 600 GB 40 C40 P
	50		29	52	CC 40000 CV3 gRB 600 PSP 50	Y086984	D 600 GB 40 C50 P
	63		42	76.5	CC 40000 CV3 gRB 600 PSP 63	X086983	D 600 GB 40 C63 P
	80		51	92	CC 40000 CV3 gRB 600 PSP 80	W086982	D 600 GB 40 C80 P

Pack: 1 piece



DC Square-body Fuses

Sizes 600 - 602 - 2x602

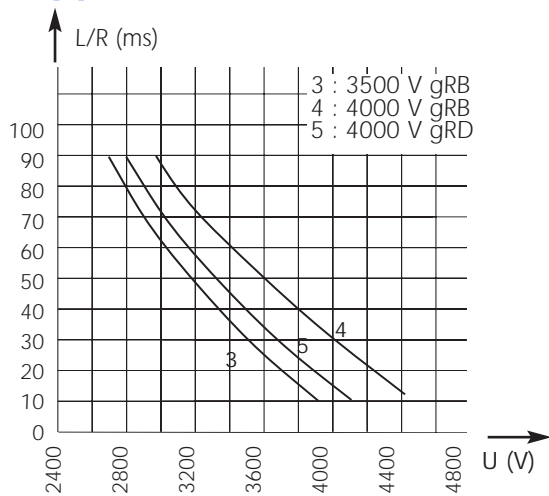
gR Blades size 600 - 3500 to 4000 V DC



gRB-gRD from 10 to 80 A

Electrical characteristics

DC applications data

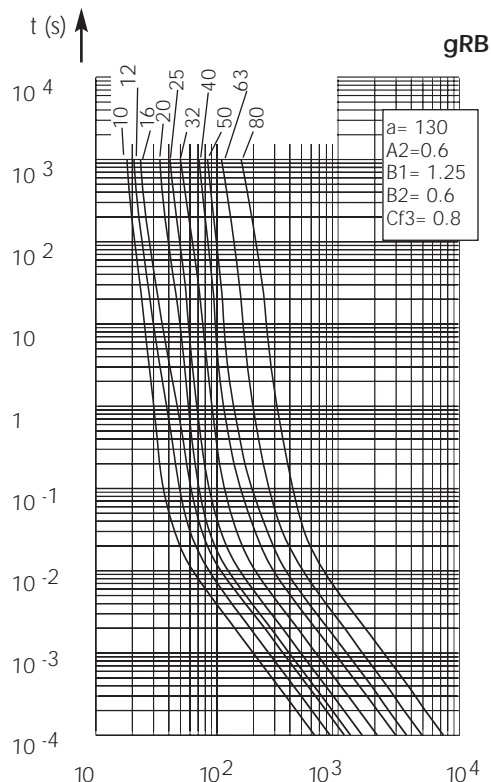


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

3600 V with breaking capacity of 30 kA

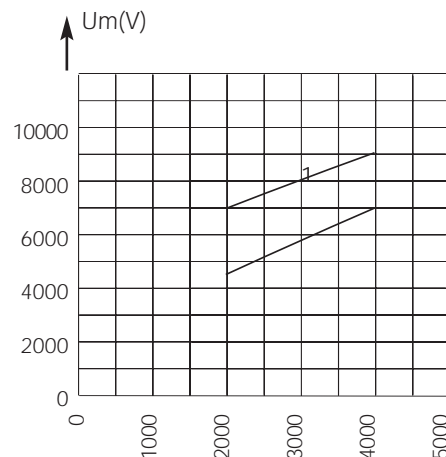
Time vs. current characteristics



$\pm 8\%$ tolerance for mean pre-arcing current

Above: Curves indicate, for each rated current, the pre-arcing time vs. the R.M.S. pre-arcing current.

Peak arc voltage vs. working voltage



1: $L/R = 30 \text{ ms-3500-4000 V gRB}$

2: $L/R = 15 \text{ ms 4000 V gRD}$

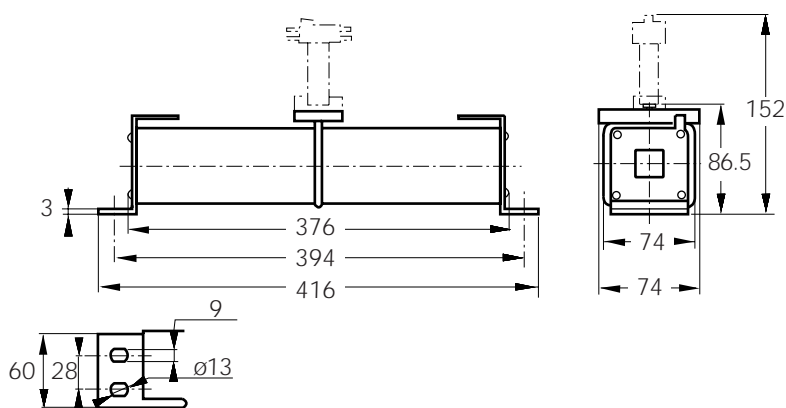
Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



DC Square-body Fuses Sizes 600 - 602 - 2x602 gR Brackets size 602 - 4000 V DC

gRB-gRD from 100 to 280 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
602	100	@ 4000 V DC	55.6	100.8	CC 40 gRB 602 QF 0100	V086958	D602GB40C100QF
	125	30 kA	72.4	131.1	CC 40 gRB 602 QF 0125	W086959	D602GB40C125QF
	160	L/R = 30 ms	84.8	153.6	CC 40 gRB 602 QF 0160	X086960	D602GB40C160QF
	160	@ 4000 V DC	58	101	CC 40 gRD 602 QF 0160	E075766	D602GD40C160QF
	200	30 kA	76.5	141	CC 40 gRD 602 QF 0200	F075767	D602GD40C200QF
	250	L/R = 15 ms	95	174	CC 40 gRD 602 QF 0250	G075768	D602GD40C250QF
	280		108	198	CC 40 gRD 602 QF 0280	H075769	D602GD40C280QF

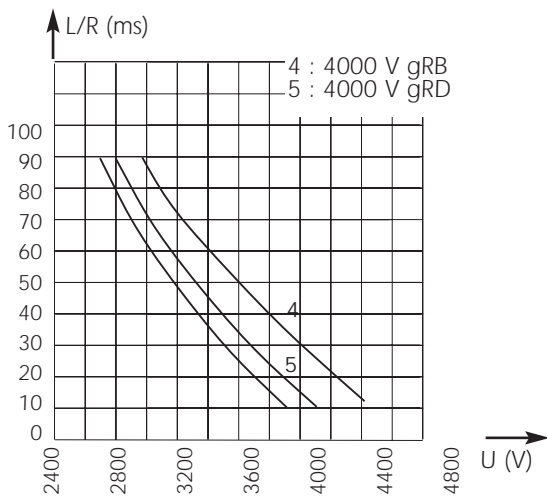
Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025

DC Square-body Fuses Sizes 600 - 602 - 2x602 gR Brackets size 602 - 4000 V DC

gRB-gRD from 100 to 280 A

Electrical characteristics DC applications data

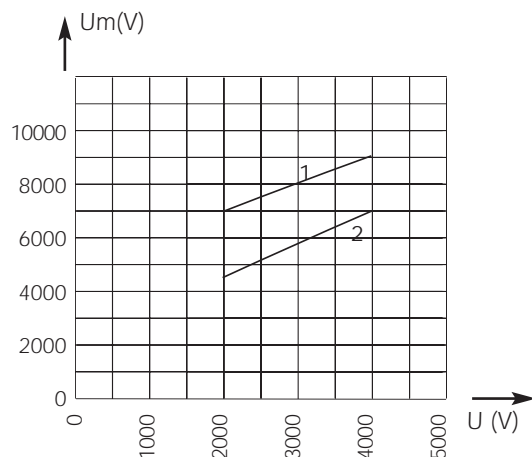


Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
3600 V with breaking capacity of 30 kA

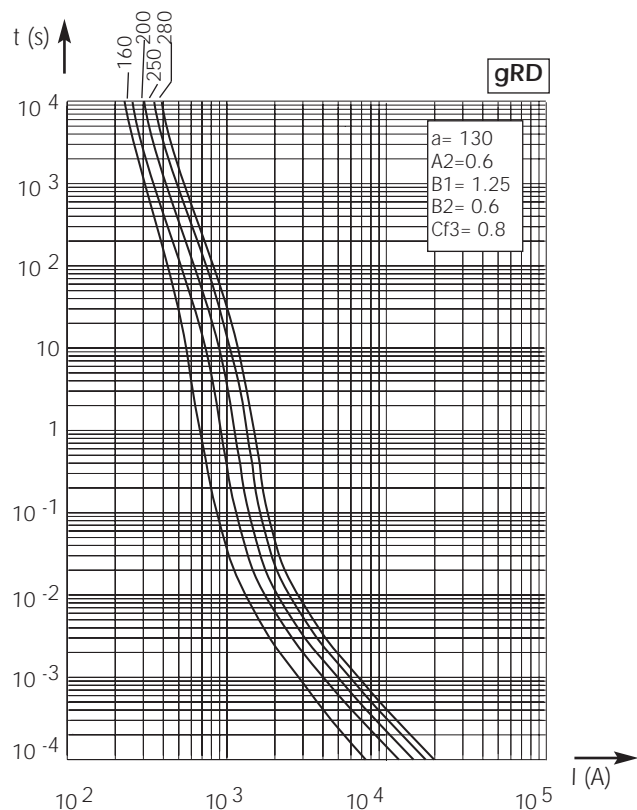
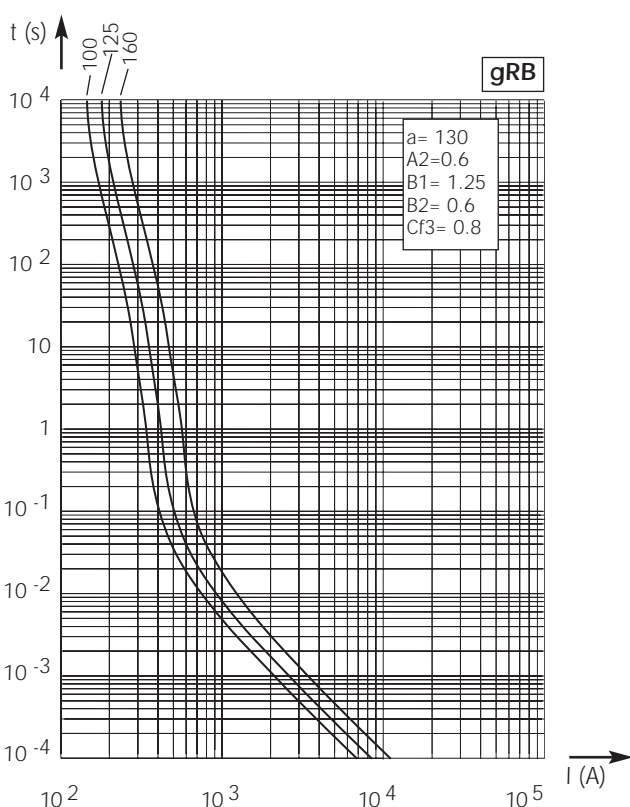
Time vs. current characteristics

Peak arc voltage vs. working voltage



1 : $L/R = 30$ ms 4000 V gRB
2 : $L/R = 15$ ms 4000 V gRD

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

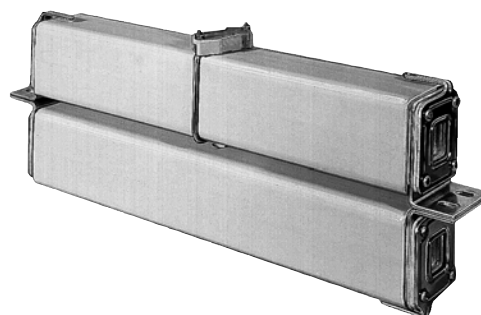
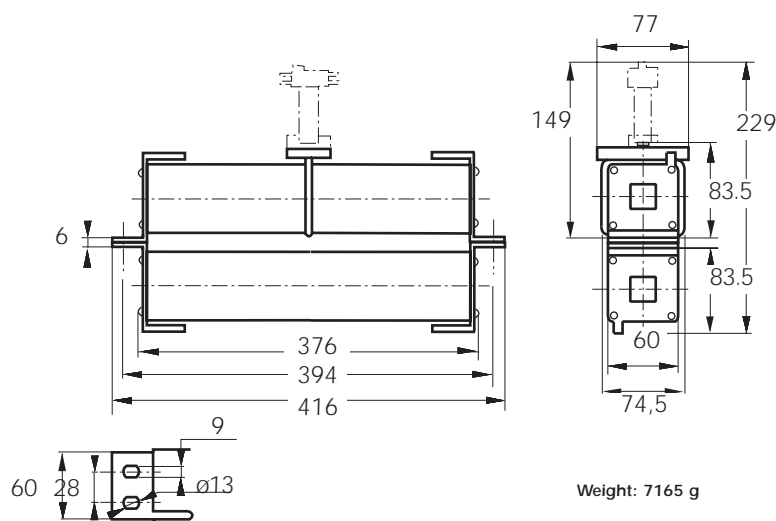
$\pm 10\%$ tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 600 - 602 - 2x602 gR Brackets size 2x302 - 4000 V DC

gRB-gRD from 200 to 560 A

Dimensions



Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$ (W)	I_N (W)			
2x602	200	@ 4000 V DC 30 kA L/R = 30 ms	109	200	CC 40 gRB 2x602 QF 200M	R086955	D2602GB40C200QF
	250		138	254	CC 40 gRB 2x602 QF 250M	S086956	D2602GB40C250QF
	315	@ 4000 V DC 30 kA L/R = 15 ms	126	231	CC 40 gRD 2x602 QF 315M	J075770	D2602GD40C315QF
	400		153	282	CC 40 gRD 2x602 QF 400M	K075771	D2602GD40C400QF
	500		190	348	CC 40 gRD 2x602 QF 500M	L075772	D2602GD40C500QF
	560		216	396	CC 40 gRD 2x602 QF 560M	M075773	D2602GD40C560QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025



DC Square-body Fuses

Sizes 600 - 602 - 2x602

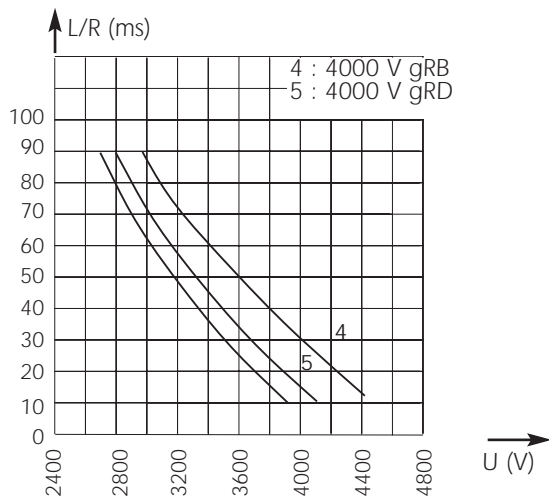
gR Brackets size 2x302 - 4000 V DC



gRB-gRD from 200 to 560 A

Electrical characteristics

DC applications data



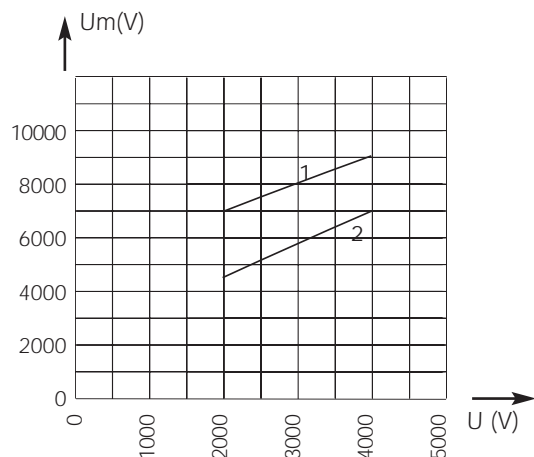
Above: Curves indicate maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

3600 V with breaking capacity of 30 kA

Time vs. current characteristics

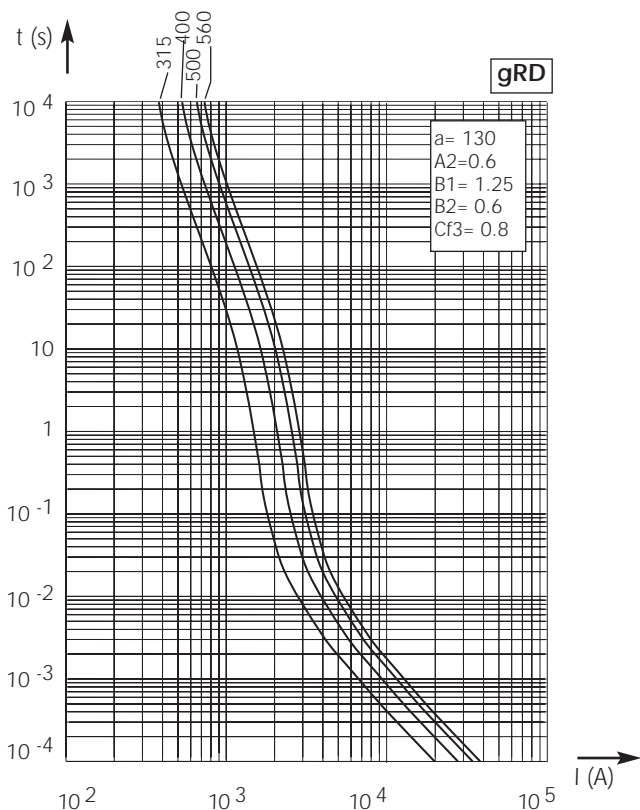
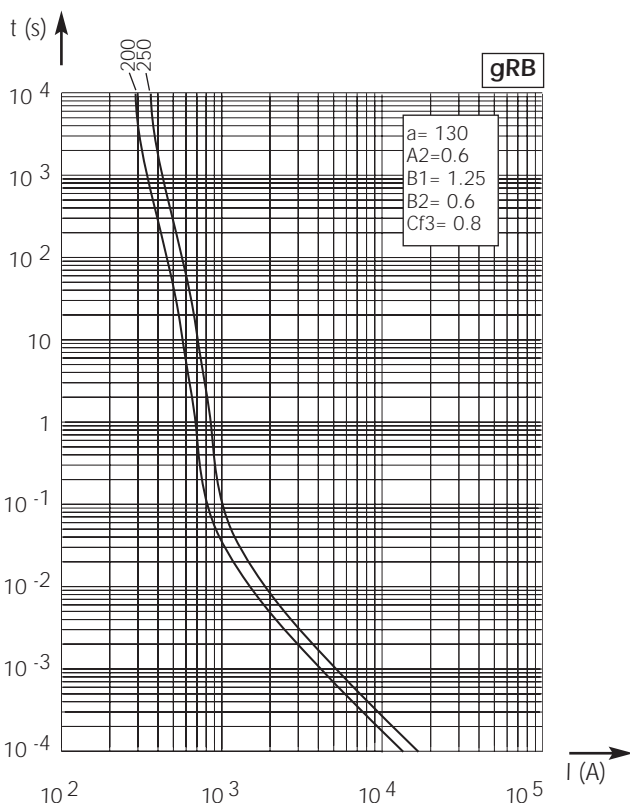
Peak arc voltage vs. working voltage



1 : $L/R = 30$ ms 4000 V gRB

2 : $L/R = 15$ ms 4000 V gRD

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



Above, left and right: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

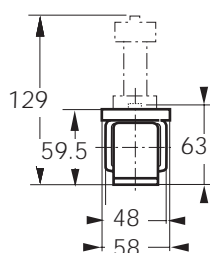
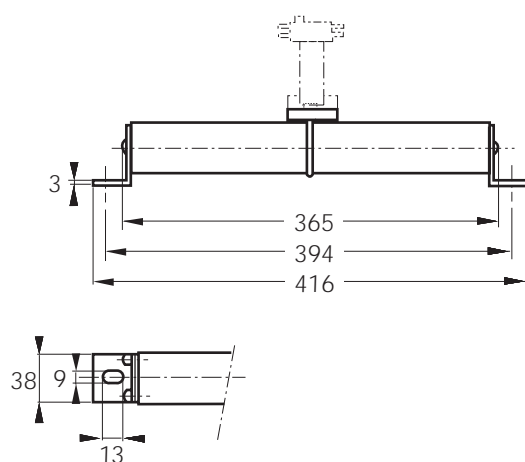
± 10% tolerance for mean pre-arcing current



DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Brackets size 600 - 3500 to 4200 V DC

3500 - 4000 VDC
SRB from 10 to 32 A

Dimensions



Weight: 1920 kg

Main Characteristics

Size	Current rating I_N (A)	Breaking capacity	Watts loss		Designation	Ref. Number	Catalog Number
			$0.8 I_N$	I_N			
600	10	under 3500 V = 60 kA	5.5	12	CC 35 SRB 600 QF 0010	E089405	D600SB35C10QF
	16	L/R = 25 ms	8.2	18	CC 35 SRB 600 QF 0016	F089406	D600SB35C16QF
	20		10.5	23	CC 40 SRB 600 QF 0020	G086946	D600SB40C20QF
	25	under 4000 V: 60 kA	13.3	29	CC 40 SRB 600 QF 0025	H086947	D600SB40C25QF
	32	L/R = 25 ms	16.5	36	CC 40 SRB 600 QF 0032	J086948	D600SB40C32QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025

DC Square-body Fuses

Sizes 600 - 602 - 2x602

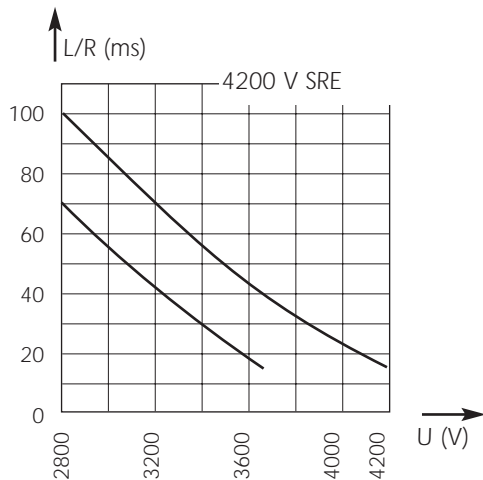
SR Brackets size 600 - 3500 to 4200 V DC

SRB from 10 to 32 A

Size 600

Electrical characteristics

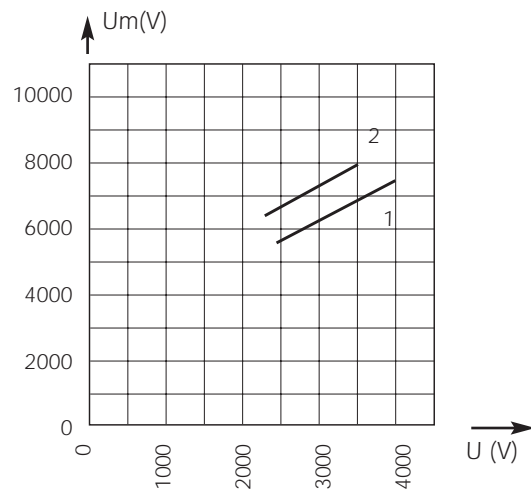
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):
3800 V with breaking capacity of 50 kA

Peak arc voltage vs. working voltage

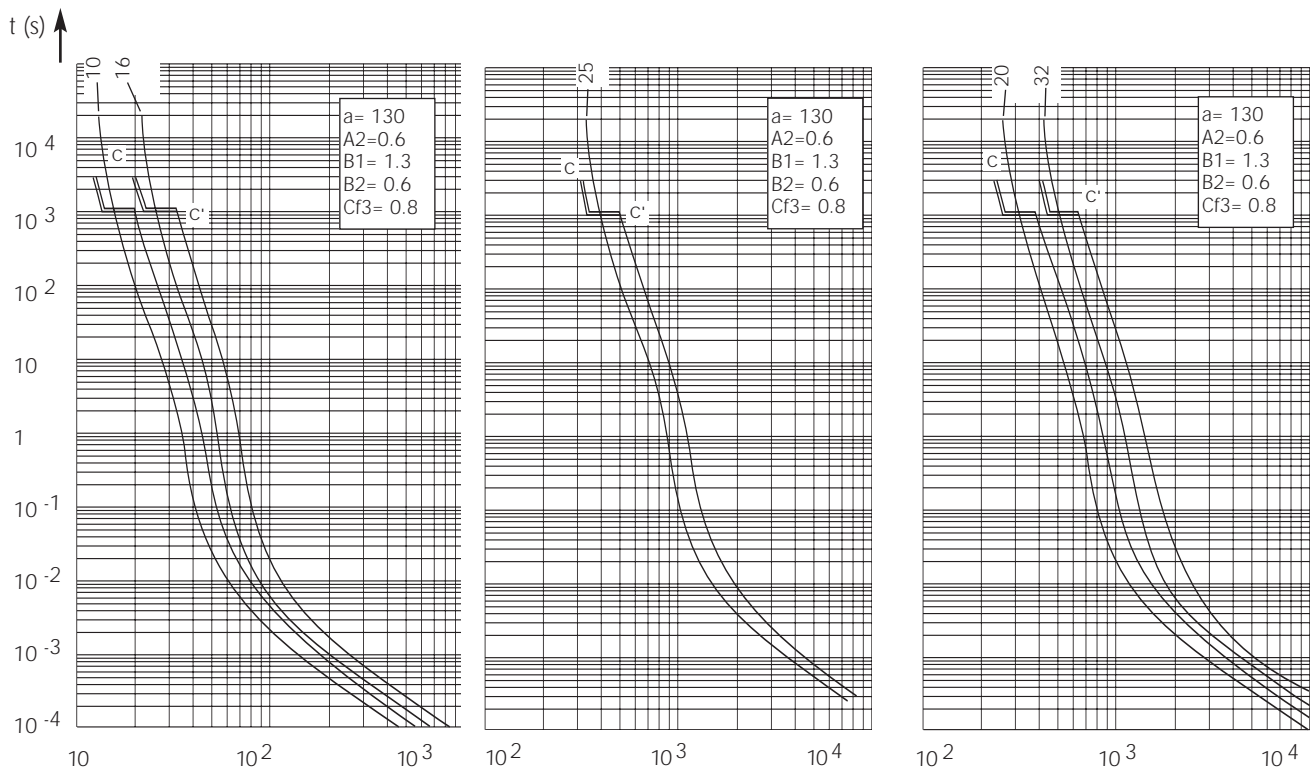


1 : $L/R = 15 \text{ ms}$ 4200 V SRE

2 : $L/R = 45 \text{ ms}$ 4200 V SRE

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



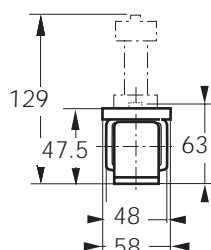
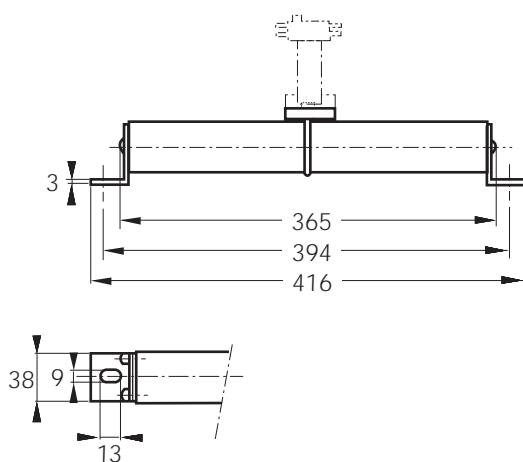
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current



DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Brackets size 600 - 3500 to 4200 V DC

4000-4200 V DC
SRE from 40 to 150 A

Dimensions



Weight: 1920 g

Main Characteristics

Size	Current rating I_N (A)	Breaking Capacity	Watts loss		Max. I^2t @ 3500 V		Designation	Ref. Number	Catalog Number
			0.8 I_N (W)	I_N (W)	L/R = 15 ms (A ² S)	L/R = 45 ms (A ² S)			
600	40	@ 4000 V DC 60 kA L/R = 25 ms	50	100	480	850	CC 42 SRE 600 QF 0040	C079490	D600SE42C40QF
	50	@ 4200 V DC 60 kA L/R = 15 ms	52	103	1050	800	CC 42 SRE 600 QF 0050	D079491	D600SE42C50QF
	63		57	114	2100	3500	CC 42 SRE 600 QF 0063	E079492	D600SE42C63QF
	80		65	128	3500	6000	CC 42 SRE 600 QF 0080	F079493	D600SE42C80QF
	100		70	140	8000	13500	CC 42 SRE 600 QF 0100	G079494	D600SE42C100QF
	125		75	147	16500	28000	CC 42 SRE 600 QF 0125	H079495	D600SE42C125QF
	150		78	155	31000	55000	CC 42 SRE 600 QF 0150	V079667	D600SE42C150QF

Microswitch MC 2R 1-5NBS Ref. Number: J310025

Pack: 1 piece

DC Square-body Fuses

Sizes 600 - 602 - 2x602

SR Brackets size 600 - 3500 to 4200 V DC

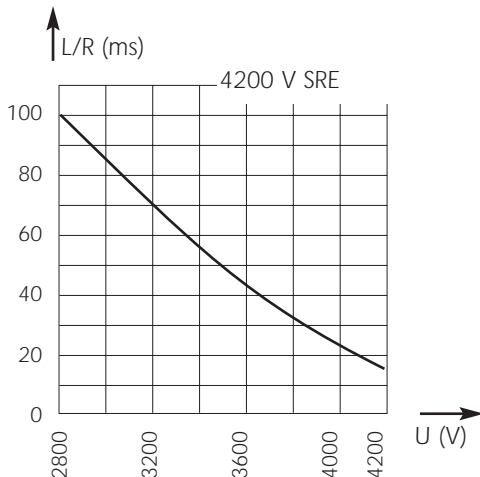


4000-4200 V DC

SRE from 40 to 150 A

Electrical characteristics

DC applications data

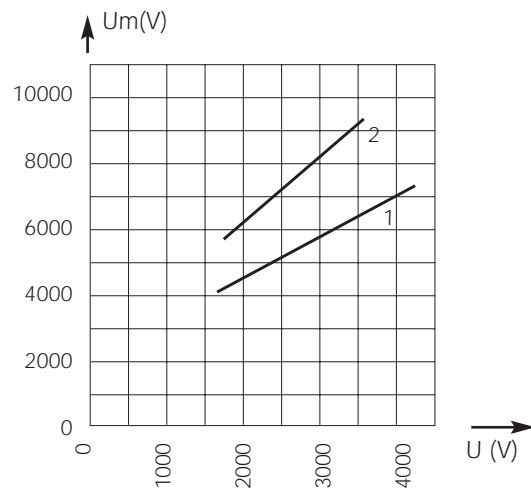


Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

Max. AC voltage (50/60 Hz):

3800 V with breaking capacity of 50 kA

Peak arc voltage vs. working voltage

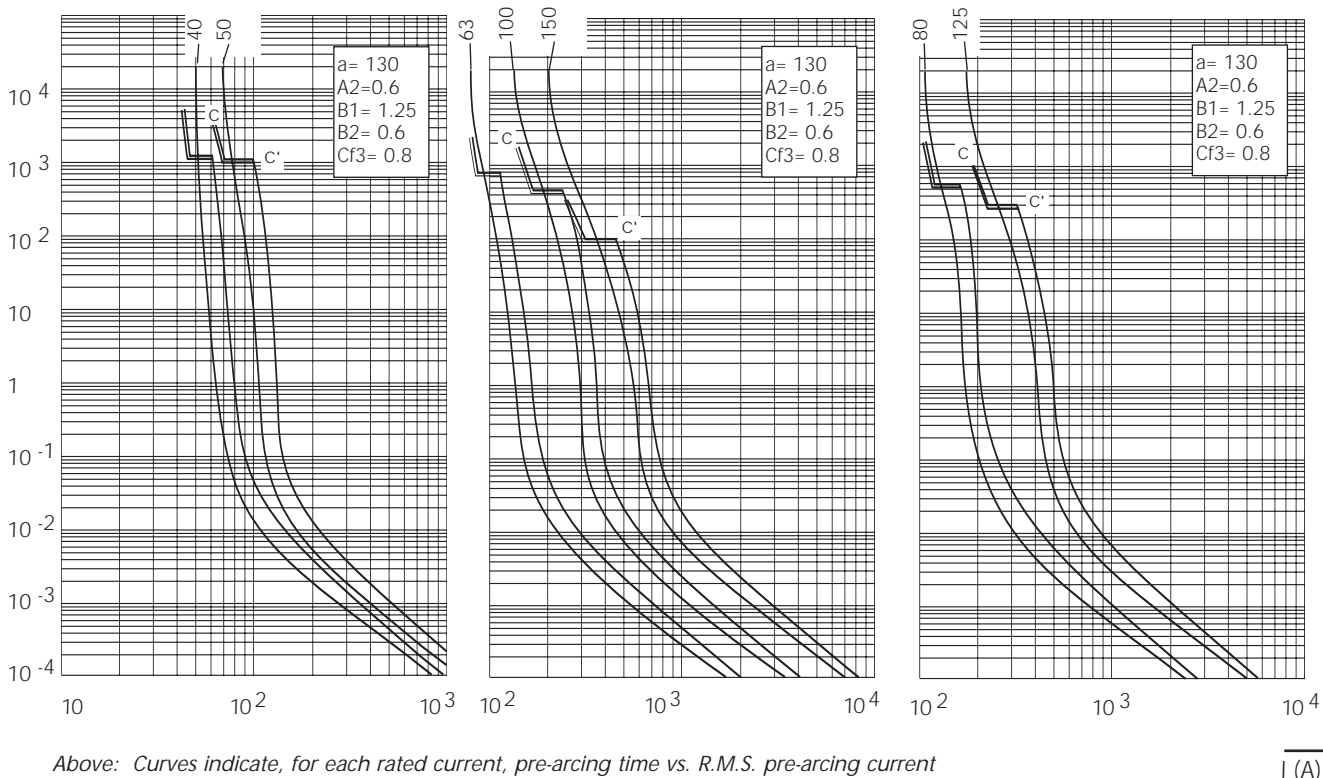


1 : $L/R = 15$ ms 4200 V SRE

2 : $L/R = 45$ ms 4200 V SRE

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

Time vs. current characteristics



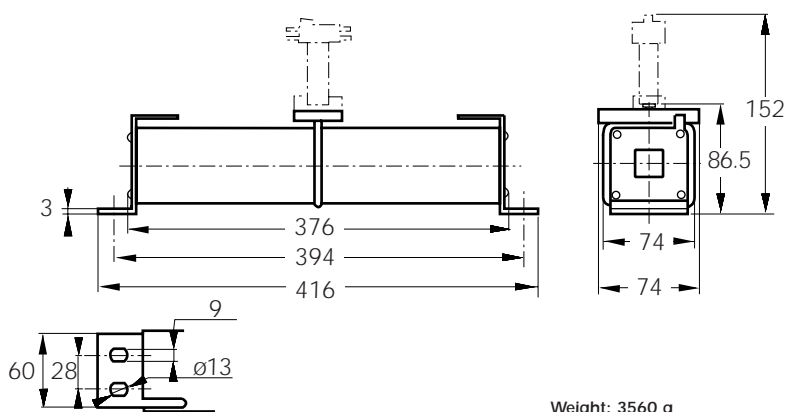
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current



DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Bracket size 602 - 4200 V DC

SRF-SRH from 200 to 375 A

Dimensions



Main Characteristics

Size	Current rating I _N (A)	Breaking capacity	Watts loss		Max. I ² t @ 3500 V L/R = 15 ms L/R = 45 ms		Designation	Ref. Number	Catalog Number
			0.8 I _N (W)	I _N (W)	(A²S)	(A²S)			
602	200	@ 4200 V DC	119	228	45000	80000	CC 42 SRF 602 QF 0200	J079496	D602SF42C200QF
	250	60 kA	122	232	100000	180000	CC 42 SRF 602 QF 0250	K079497	D602SF42C250QF
	315	L/R = 15 ms	128	245	220000	375000	CC 42 SRF 602 QF 0315	L079498	D602SF42C315QF
	375		147	280	195000	325000	CC 42 SRH 602 QF 0375	H076643	D602SH42C375QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025



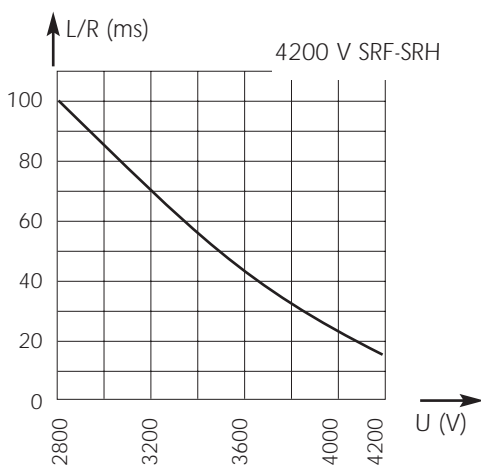
DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Bracket size 602 - 4200 V DC



SRF-SRH from 200 to 375 A

Electrical characteristics

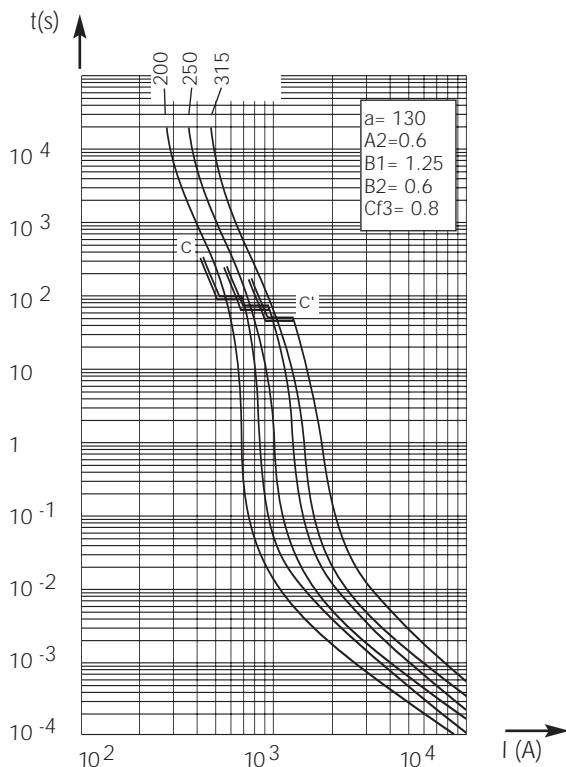
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

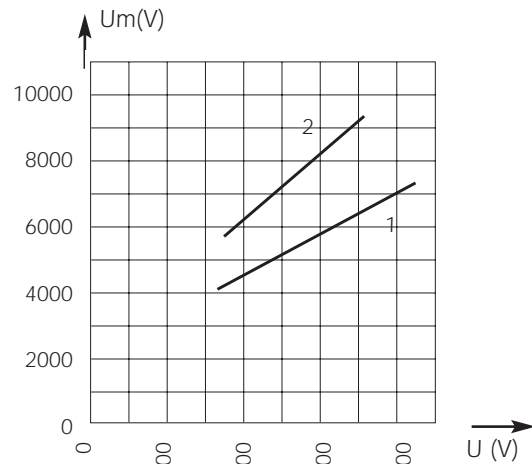
Max. AC voltage (50/60 Hz):
3,800 V with breaking capacity of 50 kA

Time vs. current characteristics



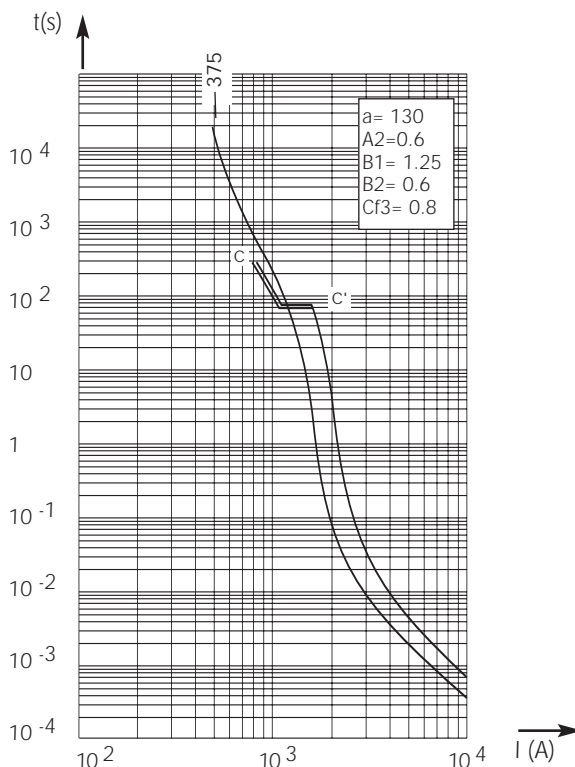
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



1 : $L/R = 15$ ms 4200 V SRF-SRH
2 : $L/R = 45$ ms 4200 V SRF-SRH

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage

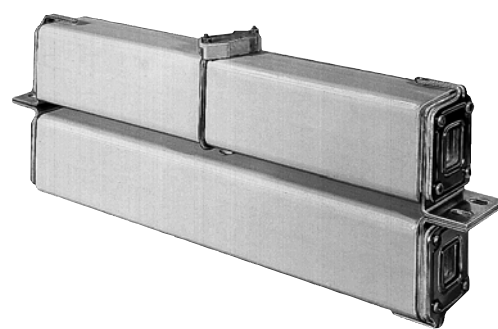
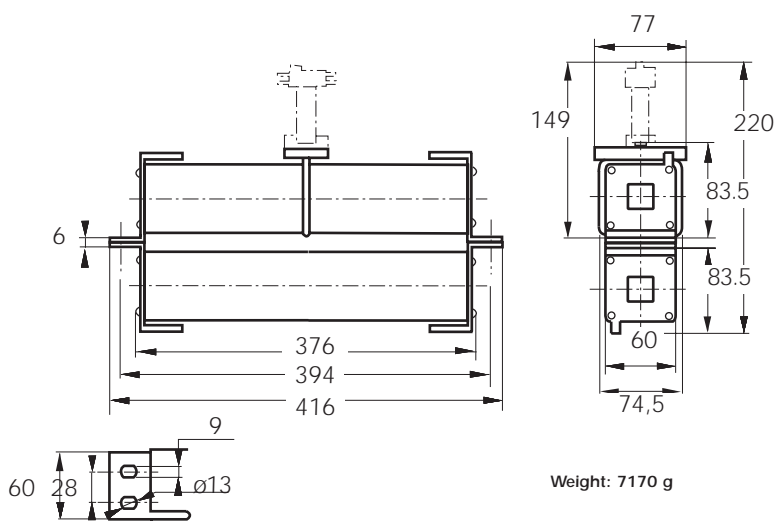




DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Brackets size 2x602 - 4200 V DC

SRF-SRH from 400 to 750 A

Dimensions



Main Characteristics

Size	Current rating I _N (A)	Breaking capacity	Watts loss		Max. I ² t @ 3500 V L/R = 15 ms L/R = 45 ms		Designation	Ref. Number	Catalog Number
			0.8 I _N (W)	I _N (W)	(A²S)	(A²S)			
2x602	400	@ 4200 V DC	250	480	180000	320000	CC 42 SRF 2602 QF 400	M079499	D2602SF42C400QF
	500	60 kA	256	487	400000	720000	CC 42 SRF 2602 QF 500	N079500	D2602SF42C500QF
	630	L/R = 15 ms	270	515	880000	1500000	CC 42 SRF 2602 QF 630	H079541	D2602SF42C630QF
	750		310	590	780000	1300000	CC 42 SRH 2602 QF 750	N078143	D2602SH42C750QF

Pack: 1 piece

Microswitch MC 2R 3E 1-5NBS Ref. Number: J310025



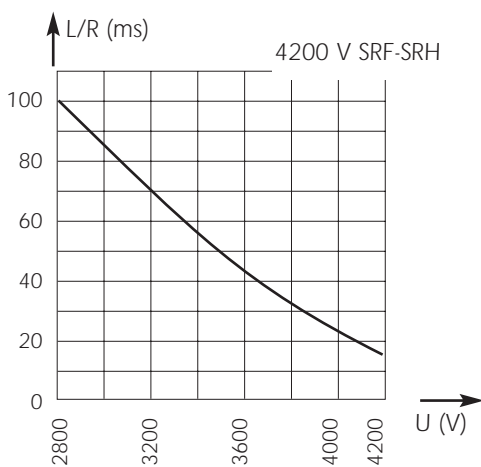
DC Square-body Fuses Sizes 600 - 602 - 2x602 SR Brackets size 602 - 4200 V DC



SRF-SRH from 400 to 750 A
Size 2x602

Electrical characteristics

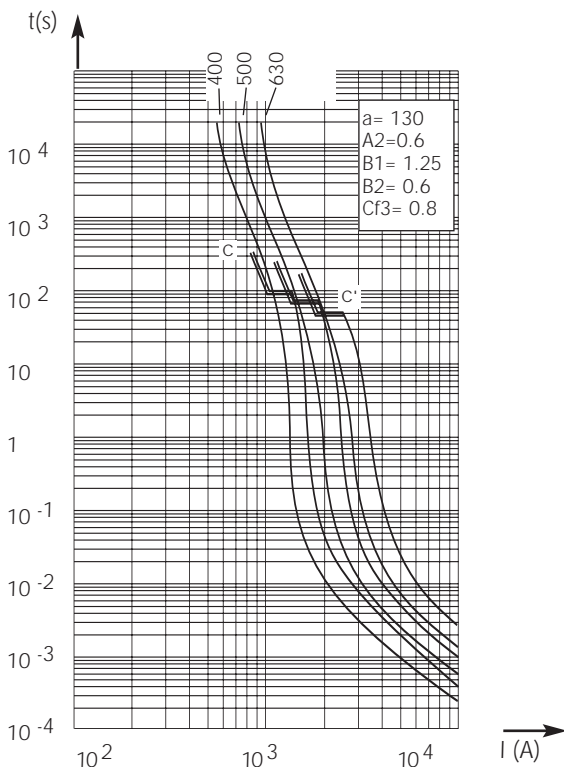
DC applications data



Above: Curve indicates maximum permissible value of time constant L/R as a function of DC working voltage

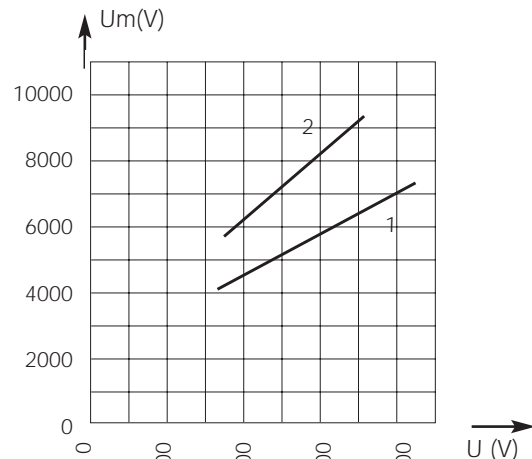
Max. AC voltage (50/60 Hz):
3,800 V with breaking capacity of 50 kA

Time vs. current characteristics



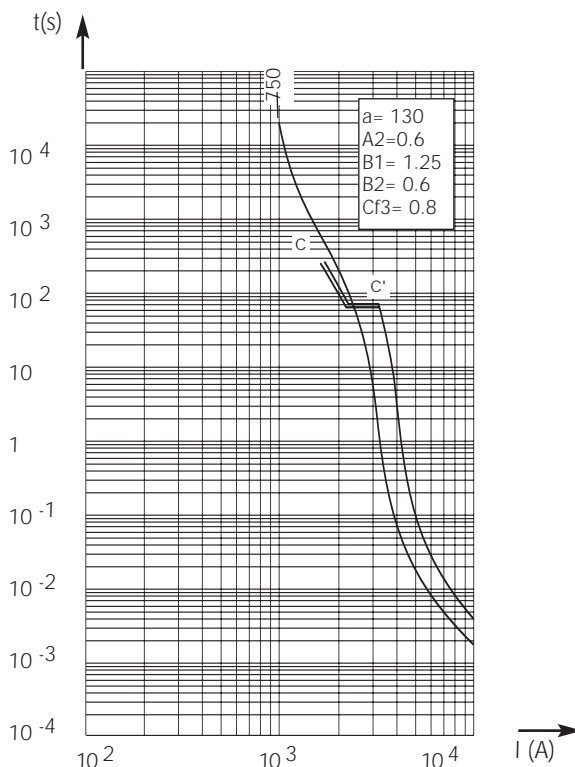
Above: Curves indicate, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current

Peak arc voltage vs. working voltage



1 : $L/R = 15$ ms 4200 V SRF-SRH
2 : $L/R = 45$ ms 4200 V SRF-SRH

Above: Curves indicate for various time constants L/R the peak arc voltage which may appear across fuse terminals, vs. DC working voltage



DC Square-body Fuses Microswitches & metric Studs Microswitches for other square-body Protistor®

- REMOTE SIGNALING SYSTEMS FOR FITTING ON
FERRAZ SHAWMUT FUSES EQUIPED WITH MICROSWITCH SUPPORT:
All square-body sizes AC 44 / 8X / 9X / 12X / 17X / 20X / 30X
and DC 7X / 12X / 17X / 30X / 60X
- PERMANENT INDICATION OF FUSE STATE:
 - CONDUCTIVE
 - BLOWN
- MANUAL RESETTING
- STANDARD AND LOW ELECTRICAL LEVEL WITH DIFFERENT INSULATION LEVELS
- VAPOR AND WATER TIGHT TYPE FOR USE IN CORROSIVE ATMOSPHERE



Main Characteristics

Type	Designation	AC or DC Insulation voltage rating Ui (V)	AC voltage withstand test (*)	Impulse voltage test Uimp1,2/50 µs (**)	Positive operating min. voltage /min. current	Current rating	Interrupting rating						
							Current	Non-inductive circuit			Inductive circuit: L/R = 25ms		
								30V	110V	250V	30V	110V	250V
Standard	MC3E 1-5N	1250V	15 kV	20 kV	20 V	5 A	50/60 Hz	10 A	10 A	7 A			6 A
	MCR3E 1-5N	2200	20 kV	30 kV	50 mA		DC	5 A	0.5 A			1,6 A	0,3 A
Low level	MC3E 1-5NBS	1250 V	15 kV	20 kV	10 V 10 mA	3 A	50/60 Hz	3 A	3 A	3 A	2 A	1 A	1 A
	MCR3E 1-5NBS												
	MCR3E 1-9NBS	2200 V	20 kV (1)	30 kV			DC	3 A	0.5 A	0,25A	3 A	0,2 A	0.1 A
	MC2R3E 1-5NBS		23 kV (2)										
	MC2R3E 1-9NBS	6000 V	24 kV (1) 26 kV (2) 32 kV (3)	40 kV									
Watertight IP 50	MC3E 1-5NET	1250 V	11 kV	16 kV	10 V 10 mA	3 A	50 Hz		3 A	3 A		1 A	1 A
	MCR3E 1-5NET	2200 V	20 kV (1)	30 kV									
	MC2R3E 1-5NET	6000 V	24 kV (2)	40 kV									

Catalog Numbering system: MC3E 1-5 single pole microswitch - MC3E 1-9 double pole microswitch - MCR, MC2R reinforced insulation microswitch.

* Between power circuit and microswitch terminals as per IEC 60 and 694 and NFC 64010 (50/60 Hz 1 min duration in dry air).

** Between power circuit and microswitch terminals Uimp: impulse voltage according to IEC 947-1.

*** Between power circuit and microswitch terminals

(1) fitting sizes 44 - 70 - 71 - 72 - 73 - 83 - 84 fuses.

(2) fitting sizes 91 - 92 - 93 - 94 - 120 - 121 - 122 - 123 - 124 fuses.

(3) fitting sizes 171 - 172 - 173 - 174 - 200 - 203 - 300 - 302 - 600 - 602 fuses.





DC Square-body Fuses Microswitches & metric Studs Metric-Studs



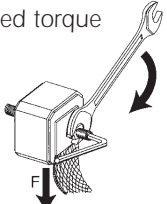
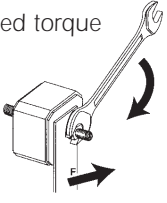
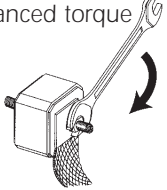
Metric studs for threaded terminal fuses



Type and fuse size	Designation	Ref. Number	Unit weight (g)	Pack.	Catalog Number
 Sizes 0 and 1 Size 2 Size 3	HC stud pair M8x30 & M8x35	S098801	23	6 pairs	STU M8x30 M8x35
	HC stud pair M10x30 & M10x50	T098802	40	6 pairs	STU M10x30 M10x50
	HC stud pair M12x35 & M12x50	V098803	60	6 pairs	STU M12x35 M12x50
 Size 2 Size 3	HC stud pair M10x50	W098804	45	6 pairs	STU M10x50
	HC stud pair M12x50	X098805	45	6 pairs	STU M12x50

We recommend the use of studs, whose quality is suited to all FERRAZ SHAWMUT square-body fuses with terminals

Stud mounting

Torque type	Stud type	Maximum stud tightening torque (Nm) (1)	Maximum nut tightening torque (Nm) (1)
Balanced torque 	M8x30 & M8x35 M10x30 & M10x50 M12x35 & M12x50	10 15 15	13.5 26 46
Balanced torque 	M8x30 & M8x35 M10x30 & M10x50 M12x35 & M12x50	10 15 15	13.5 26 46
Unbalanced torque 	M8x30 & M8x35 M10x30 & M10x50 M12x35 & M12x50	10 15 15	13.5 26 46

(1) Factory limit on torque at 20°C ambient: +0, -2Nm; except on 46Nm value (+0, -4Nm)